The Ingleby Lectures
ON
EXTRA-UTERINE PREGNANCY.

Delivered at Mason College, Birmingham, on May 11th, 18th, and 25th, 1898,

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LECTURE II.[1]

Delivered on May 18th.

THE THREE INVASIONS OF TUBAL PREGNANCY—(1) TUBO-ABDOMINAL, (2) TUBO-LIGAMENTARY, AND (3) TUBO-UTERINE.

1. *Tubo-abdominal Pregnancy (syn., Abdominal or Ventral Pregnancy).*

MR. DEAN AND GENTLEMEN,—When a fœtus which has been already formed within the Fallopian tube escapes from the tube enclosed in its *unruptured membranes* into the abdomen of the mother the pregnancy becomes "abdominal" or "ventral." If the placenta retains its attachment to the tube and receives sufficient blood-supply from the maternal blood-vessels the pregnancy may pursue an uninterrupted course to term and both child and placenta attain mature development within the peritoneal cavity of the mother. The protection of the unruptured amnion, however, appears to be absolutely indispensable for this development. I am aware that in making the statement that a tubal pregnancy thus directly becomes abdominal I am running counter to the accepted teaching of such authorities as Mr. Lawson Tait and Mr. Bland Sutton. The difficulty in believing this lay in the fact that in most of the recorded cases the child has been described as lying naked and uncovered within the peritoneal cavity of the mother. Our leading authorities have argued, and probably argued rightly, that no fœtus at any early age could be so exposed to the peritoneal cavity and its secretion and yet survive. They have accordingly sought for some method of explaining how the facts established by observation—the intra-abdominal position of the child—could possibly arise. The theory advanced is that every extra-uterine pregnancy which has survived the primary rupture of the tube and has continued its development has done so beneath the peritoneum, sheltered within the folds of the broad ligament (see Broad Ligament Pregnancy), that here it has remained until the seventh or eighth month, and then a secondary rupture of the broad ligament cyst has taken place, and the child has escaped among the intestines, "its tissues having arrived at a period of development by that time, which enabled them to resist the efforts of digestion which doubtless would be directed towards them."[2]

Although those of us who had operated on cases of abdominal pregnancy at full term felt that this theory was far-fetched and mistaken, for no broad ligament pouch from which the infant had escaped could then be found, and although the theory was more or less disproved by isolated cases of abdominal pregnancy reported by Dr. Jessop, by Dr. Champneys, by myself, by Dr. Webster, by Dr. Cullingworth, by Dr. Aust Lawrence, and even by Mr. Tait himself, I do not think we could be said to have any good explanation of the mystery to offer until a case on which I operated at the Spark Hill Hospital for Women on Dec. 11th, 1896, brought further light and explained how the child could inhabit the peritoneal cavity of the mother and still survive. On careful examination of the abdominal cavity in this case conducted by myself and my colleagues, Mr. Martin and Mr. Jordan, it was found that a transparent membrane (the amniotic sac) surrounded the fœtus and protected it in every direction, and that this was invisible on the surface of the intestine, but could be demonstrated as a film passing from coil to coil and completing the sac in which the pregnancy had developed. The case was reported by me to the Obstetrical Society of London in 1897, and the following account of the operation and parts removed is copied from the Transactions of the society.

"*Operation.*—On Dec. 11th, 1896, assisted by my colleagues, Mr. Martin, Mr. Jordan, and Dr. Sturge, I opened the abdomen in the middle line and found that the peritoneum immediately below the incision was thickened and incorporated with some kind of sac containing a dead but non-putrid fœtus. On opening this the child was found lying in the abdomen bathed in a small quantity of dark blood fluid. In this some caseous particles were floating. The head of the child lay uppermost and formed the globular protuberance which had been noticed near the liver. The intestines were visibly covering the body of the child and the great omentum, forming in one part a thick fleshy body of considerable thickness, passed across the child to a broad attachment on the upper part of the placenta. The latter was situated at the lower pole of the pregnancy and covered the pelvis. The parts of the child nearest to the incision were the lower limbs and after pulling the feet outside and enlarging the incision to admit of the passage of shoulders and head the child was extracted. The cord was then divided and the child removed. On looking into the abdomen the peritoneal cavity appeared to be directly open as in an ordinary abdominal section. The coils of intestine, the lower part of the stomach, and the great omentum were all plainly visible and separate loops of intestine could be brought out of the incision and examined. On very close observation it was first noticed by Mr. Martin and afterwards confirmed by myself and Mr. Jordan that a very thin transparent pellicle or membrane was reflected over all, or nearly all, of these viscera and that notwithstanding the apparent free exposure of the peritoneal cavity there was in all probability a thin, filmy, transparent sac enclosing the pregnancy, not capable of separation or differentiation from the peritoneum of any viscus over which it was reflected except where passing from one to another, as from one coil of intestine to another or from intestine to placenta. Only under these circumstances was the membrane visible.

"*Removal of the placenta.*—The placenta was of ordinary size and covered the pelvic inlet 'like the lid of a saucepan' incompletely closed, the edge of the placenta being exposed and free on the left side of the pelvis but closely applied to the abdominal wall on the right side where the cord was situated. The attachments of the placenta were: (1) a thick band or rope of omentum which was firmly attached to the upper or serous edge of the placenta on the left side; (2) several thin attachments or adhesions of small intestine and cæcum to the same surface; these appeared to be possible of explanation as reflections of the thin sac layer (amnion) from the intestine to the placenta; and (3) the deep pelvic attachments of the under surface of the placenta, which at this stage were hidden from view by the placenta itself. The band of omentum was ligatured in sections and divided; then the adhesions to the bowel were separately tied and cut through. By tilting up the free (left) edge of the placenta it was now possible to discover a broad band of attachment below it in the pelvis. This was seized by a pair of Doyen's elastic forceps and divided. When this had been done a further part became accessible and it was found possible by gentle manipulation to secure either by forceps or ligature all pelvic attachments before separation, so that the placenta was finally removed without any loss of blood, and therefore with a clear field for deliberate operative work throughout. Below the placenta, in the pelvic portion of the sac, was found quite a collection of caseous masses (remains of the vernix caseosa), which was cleared out of the pelvis partly by the fingers and partly by a douche of warm water which was used for washing out the abdomen. The main attachments, which had been temporarily clamped by forceps, were found to come from the right broad ligament. These were ligatured in sections beneath the forceps and the forceps were then removed.

"On examination of the pelvis where the placenta had been it was evident that the same arrangement of sac existed here as in the upper abdomen—that is, a fine transparent membrane could be traced throughout and formed a limiting layer between the usual viscera of the abdomen, pelvis, and placenta on the one hand and the child on the other. On replacing the placenta in position this membrane

[1] Lecture I. was published in THE LANCET of May 28th, 1898.
[2] Tait: Lectures on Ectopic Pregnancy, p. 59.

could be traced below the placenta to the bottom of the pelvis on the right side; it was then reflected over the broad ligament and all its attachments to the under surface of the placenta. From this it could be traced all over the placenta except where intestine or omentum was adherent to its surface. Two-thirds (at least) of the placental margin was free, and this was consequently smooth, glistening, and everywhere covered by the thin membrane of the sac. Owing to this disposition of the sac within the pelvis the outline of the normal pelvic viscera, the uterus, tubes, and ovaries was considerably obscured, so much so that it was impossible to say whether the right ovary had been removed with the placenta or whether it had been left in the pelvis below the reflections of the sac.

"The abdomen was closed with silkworm-gut sutures and a drainage-tube left in the lower angle of the wound. The after-progress of the case was satisfactory and uneventful except for some chronic suppuration in the lower part of the wound. This appeared to be kept up by caseous remains which had been imperfectly removed, as on more than one occasion some caseous particles were observed in the discharges. The patient was discharged convalescent on Jan. 25th, 1897.

"*Description of parts removed.*—The child weighs 7 lb. and is a male fœtus which has undergone full development within the abdomen of the mother. The nails of the fingers extend some distance beyond the finger-tips and are firm and horny. The testes appear to be within the scrotum and the hair of the head is abundant but short. The trunk and limbs are perfectly developed; the head is rather large in proportion to the rest of the body and is bent or twisted to the right, so that the left (or extended) side of the neck and face appears to be permanently larger than the right, the head being fixed laterally towards the right shoulder. There are no signs of decomposition. Closely applied to the head of the child is a perfect cap of membrane and between this and the head of the child is a considerable quantity of caseous matter. This is the only part where any membranous covering or sac can be distinguished. The umbilical cord and its fœtal attachment are in every respect normal. The placenta weighs 3 lb.; it is thick and fleshy and of fairly normal consistence. On its upper service and edge it is marked by (1) the insertion of the cord excentrically placed; (2) by the attachment of a divided thick band of tissue, probably omental; and (3) by several large distended vessels almost unsupported by any tissue, but directly attached to the placental surface or edge. (These appear to be portions of adherent omentum which have been changed into congeries of dilated veins.) The shape of the placenta is peculiar; the bulk of it is circular, with an excentric cord inserted near one border (the right). Beyond this and separated from it by a deep sulcus is a crescentic mass of placental tissue attached to the main placenta by its horns and lower surface. On the surface of this crescentic part is a pale red fringed mucous patch, which appears to be the fimbriated end of a Fallopian tube. No further trace of tubal structure can be made out on microscopic examination and on section of the mass it appears to consist throughout of placental tissue. The under surface of the placenta is in many parts as smooth and free as its upper surface, but it is marked by a long strip of raw surface running across the placenta, with a bend or angle in its course. This marks the attachment of the placenta to the right broad ligament.

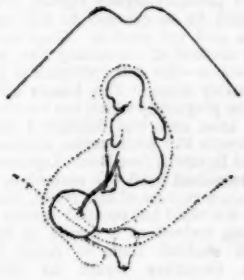
"*Remarks.*—The pregnancy may be regarded as originally one of the right Fallopian tube, which, by gradual erosion or giving way of the upper part of the tube, has passed with unruptured membranes into the abdominal cavity. The deep sulcus on the upper surface of the placenta probably marks the line of separation in the tube where the ovum escaped upwards into the abdomen. From the spread out internal surface of the (ruptured) tube the placenta has continued growing and has so altered or taken up its structure in process of growth as to render little but the fimbriated end recognisable. The placenta has derived its blood-supply from the vessels of the broad ligament and from the great omentum.

"The case is remarkable for possessing no history of any tubal rupture (or acute illness corresponding to this) throughout the whole course of the pregnancy. The conditions and opportunities for observation during the time of operation were unusually good, but in spite of this the exact state of the upper pole of the pregnancy and its relation to the abdominal viscera must be determined by circumstantial evidence as it could not be directly seen from the incision. From the fact that the head of the child is closely covered by a cap of membrane, between which and the scalp is a copious deposit of caseous material, while below this any evidence of a membranous sac is wanting (except the tear of separation around the forehead and occiput), it may be concluded, I think, that the upper part of the amniotic sac—the membrane forming the extreme upper pole of the pregnancy—has been removed with the fœtus; and that, so far as this is concerned, the abdominal cavity has been directly opened. Below this, towards the centre of the pregnancy, the sac has become incorporated with the peritoneum so that no separation could be made between the two and no indication of the presence of a sac could be seen except at its reflection from one viscus to another as already described. At a lower level still—at the 'lower pole' of the pregnancy—the sac was considerably thickened, forming, together with the peritoneum at the lower part of the abdominal incision, a membranous wall fully one-eighth of an inch in thickness. Even here, however, no definite dissection could be made between 'sac' on the one hand and 'peritoneum' on the other."

The importance of the case just quoted in the present state of our knowledge cannot be over-estimated. It effectually disposes of much of the theory now current on the subject of advanced extra-uterine gestation. On page 464 of Allbutt and Playfair's System of Gynæcology (1896) Mr. Bland Sutton writes: "Observation has demonstrated the fact that in all tubal pregnancies which survive the primary rupture and continue their development the gestation sac is formed in part by the expanded tube, but mainly by the layers of the mesometrium. The proper appreciation of this fact has done much to simplify our knowledge of tubal pregnancy and no one has more strongly insisted upon its correctness than Lawson Tait." That this is altogether mistaken is now, I believe, a certainty. The case of abdominal pregnancy here described is a tubal pregnancy which has survived the primary rupture and continued its development, in which the gestation sac is formed by the amnion alone or at most by the fœtal membranes and tube, the layers of the mesometrium are intact, and the expanded tube is entirely taken up and metamorphosed by the growth of the placenta.

A diagrammatic representation of the pregnancy (Fig. 19)

FIG. 19.



in which the omental attachments are omitted as non essential, may help to make this important variety of extra-uterine pregnancy clearer and to elucidate the relations of its sac. The essentials of the pregnancy are the fixed placenta growing mainly or entirely from the tube to which it was originally attached and the child enclosed simply in its amniotic sac, moving so far as the delicate sac permits it within the abdomen of the mother. The amniotic sac may be in some places separable from both mother and child, in other parts it may be quite inseparable from the peritoneal covering of the abdominal viscera within the maternal abdomen. The condition is produced in the most simple manner. The pregnancy begins within the tube and grows there until it can grow no longer. Then by rupture or by some slow separation of the tube equivalent to rupture the tube is opened up. The child within its amniotic sac escapes upwards into the abdomen, the placenta remains attached to the inner surface of the tube, and from this, spread out and flattened by the rupture, the placenta continues to grow.

But this case not only tends to disprove the broad ligament

theory as of universal or even general application. It serves another and more important purpose. If the cases of abdominal pregnancy be carefully considered in the light of the explanation here offered it will be found that most, indeed very nearly all, of the recorded cases in which no definite sac has been found admit of a similar interpretation. In Mr. Jessop's case it is stated that "the peritoneal lining, though natural on its free surface, appeared thick and velvety in section," and later we read: "A few bands of unorganised lymph of a very friable nature lying upon, but not adherent to, the intestines were readily removed by sponging and about an ounce of a clear serum was found in the peritoneal cavity." The definite amount of serum here mentioned is decidedly suggestive of some unrecognised limiting sac and not of free fluid welling up from the pouch of Douglas out of sight. In Bandl's case, quoted by Mr. Tait, the fœtus was enclosed in a "pocket formed by false membranes." In Dr. Champneys' case the references to some filmy kind of sac are still more obvious. We read: "The layer immediately covering the fœtus was a dull white membrane." Again: "On the child's vertex a patch of thin, sodden-looking membrane was seen and except a shred of similar material removed from the wound (probably torn from the head during delivery) no membranes were seen or felt." In the report of the dissection of the child we read: "There was a sort of cap of sodden membrane (amnion) on the vertex which was covered with dark hairs," and in the report of the necropsy of the mother: "The fœtal surface [of the placenta] was also marked by a remnant of membranes which hardly extended beyond the placenta." The similarity between this case and those which I have myself reported is, I think, clear and unmistakeable.

The lower pole of the pregnancy does not always take the form described in the case I have just reported and depicted in the illustration. In a case on which I operated at term, both mother and child surviving, the amniotic sac stopped short at the placental insertion as in normal intra-uterine pregnancy and the raw under-surface of the placenta had extended or grown beyond its tubal site and was attached to the posterior surface of the uterus, the sigmoid flexure and the pelvic wall as well as to the tube. But though I failed to fully understand it at the time I am now quite satisfied that the pathological relations of the fœtus were exactly similar to those I have described as present in the preceding case. The ragged margin of the amnion in this case may still be seen attached to the placenta and the rest of the sac was probably continued as a transparent covering or sheath over the small intestines and the under surface of the great omentum around the space from which I removed the child. The conditions met with in this case are diagrammatically represented in Fig. 20. The salient

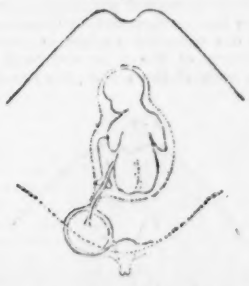
FIG. 20.

features which separate it from the preceding case will be recognised at once on comparing the accompanying diagrams.

There are two other conditions under which the placenta may be found in advanced abdominal pregnancy. In the first the tube, although excessively expanded, may retain its individuality and the placenta be found still lying within it. In one case of this kind, the case of Dr. Halliday Croom, minutely examined and described by Clarence Webster, he states, "A large, well-formed, recently dead fœtus was removed from a sac which extended nearly up to the liver and which had in the lower part of the abdomen a thick anterior wall. There was an excessive amount of amniotic fluid. The uterus was enlarged, elevated, and drawn towards the right side. The placenta was in a separate sac to the left side of the pelvis—a thick viscoid mass extending 2 in. above the brim. The gestation sac was double, one containing the fœtus, the other the placenta. The former was that part of the peritoneal cavity behind the stomach, transverse colon, and great omentum; the latter consisted of the enormously dilated Fallopian tube lying in front of the uterus and extending vertically from the utero-vesical pouch to the fourth lumbar vertebra. Though quite distinct from one another they were connected by means of the umbilical cord and amnion; this membrane lined the secondary (peritoneal) sac and passed into the substance of the primary (tubal) sac.

Another case very similar to this was reported by Mr. Tait to the Obstetrical Society in 1892 under the title of "A Case of Ectopic Pregnancy in which the Fœtus seems to have been Developed to the Full Time in the Peritoneal Cavity, still retaining its Amniotic Covering." In the report of this case we read: "The child was lying loose in the abdominal cavity except that all its upper surface had become adherent to the omentum and to the anterior parietal peritoneum. The child was still enclosed in its membranes, but the liquor amnii had entirely disappeared. The umbilical cord went straight down to a round, smooth, globular mass about the size of a cocoanut, which occupied the pelvic cavity and was adherent to the surrounding tissues. The question of the removal of the placenta, which this substance really was, occupied my mind for a few seconds. On making tentative efforts to separate the globular mass I found that it peeled out with considerable ease, much as a broad ligament cyst would, and after it was separated down to a pedicle which was the cornu of the uterus it became perfectly evident that the globular mass was the right Fallopian tube." Following the graphic method previously employed to illustrate the relations of the placenta this form may be diagrammatically represented as in the accompanying illustration (Fig. 21).

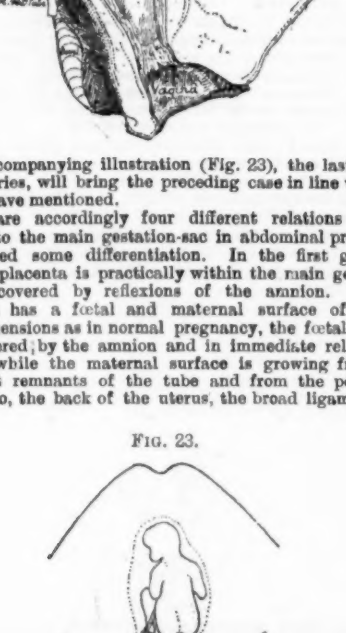
FIG. 21.



Finally, there is one specimen which shows that the abdominal position of the fœtus may be associated with an intra-ligamentary placenta. For a long time I failed to find any certain evidence that advanced abdominal pregnancy was ever the outcome or sequel of secondary rupture from the broad ligament into the abdomen. But in examining the various specimens to be met with in London I came across a most valuable one in the St. Thomas's Hospital Museum (No. 2491) which shows that this is a possible, though, I believe, a very rare, occurrence. The accompanying illustration (Fig. 22) is a drawing of my own made directly from the specimen itself. There is a large sac formed by the left broad ligament on one side of the uterus—the uterus, indeed, forms a kind of appendage to its wall—the left Fallopian tube courses over its summit and directly underneath this lies the attachment of the placenta. On the outer side of the sac is a rather large lacerated opening through which the fœtus passed into the abdominal cavity. The specimen is said to be taken from a woman who died at the full period of gestation. Although the sac is a large one it is scarcely of sufficient size to have contained a full-time fœtus, and therefore it is at all events highly probable that in the later months of pregnancy the fœtus surrounded by its amnion was strictly abdominal in position as in the other cases I have been describing. If so, we have a fourth position of the placenta in abdominal pregnancy. Strictly speaking this is "tubo-ligamentary-abdominal" and perhaps should be more correctly described under the next division of my subject, but it is more convenient to take its consideration

here. Incidentally, it is worthy of notice what a very marked and unmistakeable ligamentary sac is to be found when the fœtus has really become abdominal, after passing through an intra-ligamentary stage in its development.

FIG. 22.



The accompanying illustration (Fig. 23), the last of the present series, will bring the preceding case in line with the others I have mentioned.

There are accordingly four different relations of the placenta to the main gestation-sac in abdominal pregnancy which need some differentiation. In the first group of cases the placenta is practically within the main gestation-sac and covered by reflexions of the amnion. In the second it has a fœtal and maternal surface of nearly equal dimensions as in normal pregnancy, the fœtal surface being covered by the amnion and in immediate relation to the sac, while the maternal surface is growing from the spread-out remnants of the tube and from the peri-tubal tissues also, the back of the uterus, the broad ligament and

FIG. 23.

the pelvic wall being favourite sites for such extensions of attachment. In the third, the placenta remains within the tube, the tube is still recognisable and the maternal attachments are confined to the tube itself. In this case there may be a double gestation sac, the one containing the fœtus, the other the placenta. In the fourth the placenta is attached to the upper wall of a broad ligament sac outside the peritoneum and the cord passes to the child through a hole in the ligament.

Before I leave this portion of my subject I want to finally enforce the point that these illustrations showing the different positions of the placenta in tubo-abdominal pregnancy are no mere imaginative figures showing simply possible relations of the pregnancy to surrounding structures. They are records of facts carefully observed and are each and all supported by extant specimens still available more or less for individual inspection and verification.

The sac in abdominal pregnancy evidently varies greatly in appearance and consistency. In many of the recorded cases it can hardly have consisted of anything more than the amniotic membrane. This has become attached to the peritoneum, "its epithelial lining becoming destroyed and its sub-epithelial layer (in some places) becoming dense and fibrous" (Webster). In other situations the sub-epithelial layer has been unaffected and the membrane is directly attached to the intestine or the abdominal viscera, is indistinguishable by sight from the proper peritoneal surface of such viscera, and only visible when reflected from one viscus to another as already described. The membranes are not, however, necessarily adherent in this way; sometimes they have a completely independent existence and probably all degrees are possible of partial peritoneal attachment. Sometimes their consistency and independence are such that they have been described as being extirpated (Tait) or sutured (Rosenmauer) at the operation for removal of the pregnancy. Cases so described are, however, sometimes open to the suspicion that an unrecognised broad ligament pregnancy has been mistaken for abdominal. In true tubo-abdominal pregnancy the sac, consisting at the best of amnion and chorion, and often perhaps of an amniotic layer only, must, if independent, always be extremely thin and easily broken. If completely independent it may admit of removal with the child, but it is extremely doubtful if it could ever possess sufficient independence and consistency to admit of any independent suture. The relations of the placenta to the sac are of chief importance and will need some reconsideration under the heading of Treatment.

The extra-uterine placenta at term is an object of considerable interest. Throughout the whole course of the pregnancy the placenta has marked the site of the original and main attachment of the pregnancy, and in its attachment has held, and still holds throughout, the key to much of its pathology and treatment. When the infant has arrived at term the placenta has also reached its fullest development, and, so far as my experience goes, the extra-uterine placenta at term, though often deformed in shape, keeps close to the normal standard both in size and weight. The method by which it has attained this development outside of the uterus may well demand our attention. Mr. Sutton states: "The fully developed uterine placenta is composed of parts derived from the maternal and fœtal tissues in nearly equal parts; a tubal placenta is mainly if not entirely derived from the fœtal tissues." It is true that there is no clear evidence of a tubal decidua, but the placenta as it increases in size (like a new growth in its progress) absorbs, takes up, and metamorphoses into its own tissue that of the Fallopian tube in which it was originally enclosed, and possibly the ovary of the same side also. In a considerable number of cases it is reported that neither ovary nor tube could be identified on the side of the pregnancy. So completely is this done that all traces of the tube may be lost at term or only the fimbriated end be found, as in the case I have described. When by the reflexion of the amnion this invasion of the placenta is limited to the tube and broad ligament only the matter is solely one of pathological importance; when there is no such limitation the consequences may be serious.

It will doubtless be noticed that what I have said regarding the pathology and operative history of tubo-abdominal pregnancy appears to explain and confirm in some degree the observations of many of the older writers and I am pleased to be able in any way to re-establish their credit and re-affirm in the main the correctness of their records. It is true that they considered that the peritoneum itself might discharge the functions of the fœtal membranes (Parry, p. 135) and that the impregnated ovum might from the outset implant itself on the peritoneum and in both of these guesses after truth they were mistaken. It is true also that in the abdominal or "ventral" pregnancy they thought they saw the child floating freely among the intestines within the peritoneal cavity and did not dream of the almost invisible sheath of the adhering amnion which formed a sac to the pregnancy, but in their observation of the fact that there was an extra-uterine pregnancy in which the child was abdominal or ventral in position and in their opinion that this form of pregnancy deserved to be considered as a distinct and special variety of extra-uterine gestation they were perfectly justified and modern research tends only to confirm their view.

2. *Tubo-ligamentary Pregnancy (syn., Broad Ligament Pregnancy).*

A growing pregnancy situated in the middle of the Fallopian tube as it expands the tube instead of thinning and bursting the upper part of the tube may separate the layers of the mesosalpinx. The space between these layers, which in the normal state is non-existent or

represented by the merest line, becomes under these conditions a space of considerable extent. An increasing amount of the circumference of the tube is accordingly separated from its peritoneal covering and exposed to loose connective tissue only. As the tube expands still further it is only reasonable that it should occasionally give way in this direction and that the fœtus should be extruded into the connective tissue space below the peritoneum. This is, indeed, exactly what happens in "broad ligament pregnancy." The rupture of the tube and extrusion of the pregnancy into the broad ligament is usually accompanied by considerable hæmorrhage, which still further distends the space beneath the peritoneum and between its layers. An extra-peritoneal hæmatocele or broad ligament hæmatoma is the result and in some cases the pressure and disturbance caused by this is sufficient to stop the progress of the misplaced pregnancy. When this is the case the hæmorrhage is slowly absorbed and if the pregnancy be early and abortive it undergoes absorption also.

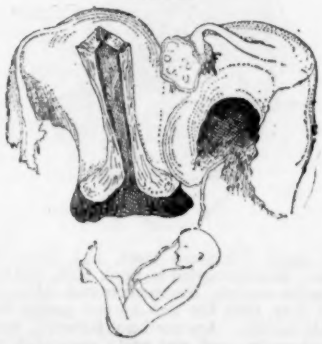
Broad ligament hæmatoma is of rather frequent occurrence as a sequel to any operation involving ligature of the broad ligament, and the hæmatoma is apt to occur at the first menstrual period subsequently to the operation. Every surgeon who practises operative gynæcology must accordingly be well acquainted with its leading features. It arises suddenly as a tumour or infiltration on one side of the uterus, it roofs the lateral vaginal fornix with a boggy or hard immoveable cement of blood-clot, and gradually extends upwards towards the groin of the affected side at Poupart's ligament. Sometimes its prolongations below are ill-defined and difficult to trace, at other times the tumour is defined and its border is abrupt. When the hæmorrhage is extensive and on the left side it may encircle and block the rectum, as Mr. Tait has shown. At other times, by burrowing in front of the rectum low down in the pouch of Douglas (as shown in the accompanying illustration taken from the work of Dr. Hart and Mr. Carter), it may produce a well-defined tumour behind the uterus that closely simulates the intra-peritoneal swelling of a distended and adherent tube. (Fig. 24). It

FIG. 24.

always causes considerable pain (pain preventing sleep) and is frequently accompanied by transient fever. Broad ligament hæmatoma is often confounded with cellulitis and the differential diagnosis is sometimes very difficult. The bare physical signs in both conditions may be identical. Besides being a rather frequent operation sequel, hæmatoma of the broad ligament is occasionally met with after labour and abortion and in connexion with menstrual irregularity and arrest when no pregnancy exists. Other cases are due to the intra-ligamentary rupture of a tubal pregnancy, as already explained, but these are by no means so frequent as some writers would lead us to suppose. In this respect extra-peritoneal hæmatocele (broad ligament hæmatoma) may be said to contrast with intra-peritoneal hæmatocele. Intra-peritoneal hæmatocele in women is almost always due to tubal pregnancy; hæmatoma of the broad ligament, on the other hand, is only in the minority of cases due to this condition. When the pregnant tube ruptures into the broad ligament the hæmorrhage may be limited or small in amount and the placental attachment may be undisturbed. If so, the tube retains its relation and attachment to the placenta while the fœtus (instead of escaping upwards as in abdominal pregnancy) escapes downwards between the layers of the broad ligament and undergoes its further development beneath the peritoneum.

Let us take an actual example of this accident and study it more closely. There is a remarkable specimen in Mason College Museum given by Mr. Hancox which beautifully shows the condition of a broad ligament pregnancy of four months' growth and is well adapted for our purpose. On the right side of the uterus in the illustration (Fig. 25) the

FIG. 25.

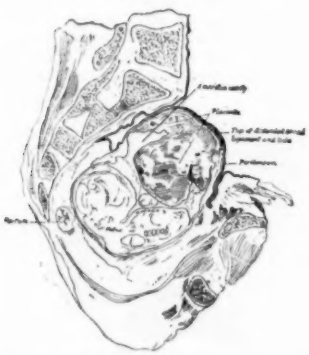


fimbriated end of the Fallopian tube is plainly seen resting upon the roof of a large excavated chamber formed by the upraised layers of the distended broad ligament. If we trace the tube from the fimbriated end towards the uterus we find that it is soon lost in the expanded roof of the broad ligament chamber. The tube as a tube exists no longer. Its middle third is ruptured and spread out and forms the immediate vault of the pregnancy beneath the peritoneum. It is only with difficulty that we can rediscover some trace of its independent existence on the further side of the broad ligament tumour before it enters the uterus. The fœtus has escaped from its cavernous bed by secondary rupture and is now lying outside the broad ligament. It is still, however, connected by the cord, and if we could trace this upward to its termination we should find the placenta attached to the roof and lateral wall of the cavity in the broad ligament, and plainly situated above the original position of the fœtus which has escaped from it. Note that the placenta is uppermost. The course of events has been as follows: the impregnated ovum was arrested in the tube; where it was arrested it adhered and vital attachment took place. At the point of attachment the placenta was formed and no subsequent growth of the pregnancy has separated this attachment. The tube, instead of rupturing upwards into the abdomen, has ruptured downwards into the broad ligament. Into this space the fœtus has been driven and over the buried fœtus the placenta is fixed and blocks any upward progress. What is the inevitable consequence? If the pregnancy continues to develop either secondary rupture must occur or the peritoneum be continually displaced to make room for the growing fœtus. In this instance the case has ended by secondary rupture and the patient has evidently died from hæmorrhage or we should not have such a specimen before us.

Let us now turn to Dr. Berry Hart's and Mr. Carter's sagittal section of a broad ligament pregnancy at nearly the same period of growth. (Fig. 26.) Here we may see an exactly similar condition beautifully portrayed in section. Mark at the highest point the "top of the distended broad ligament and tube"; below this, intimately attached and inseparable from the tube, the mass of the placenta, and again below this, crowded and buried in the lowest part of the pelvis, the unfortunate fœtus. Illustrations intended to show in section the peritoneal reflexions are sometimes confusing and difficult to understand, but this is exceedingly simple and intelligible. The pelvic peritoneum is lifted by the growth of the pregnancy until it is no longer pelvic, or only slightly so. Its reflexions before and behind are shallow depressions only and the arch of it runs across from the promontory of

the sacrum to the pubes. In this instance, too, the case ended by secondary rupture and the patient died from hæmorrhage, though an attempt was made to save her by exploratory incision. Some of the clinical and operative features of a case at this stage may be gathered from the following example.

FIG. 26.



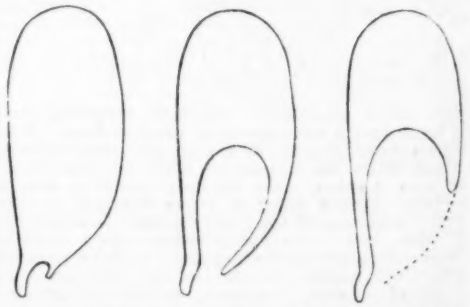
Mrs. G, aged thirty-one years, had been married for three years. She miscarried in April, 1891, and in February, 1892 (at twelve weeks). She menstruated regularly from this date until July, 1892, the last normal period being at the end of this month. Amenorrhœa followed, continued for nearly eight weeks, and was again succeeded by irregular vaginal loss for some two weeks before I saw her on Oct. 10th. The patient gave the history of a sudden attack of pain three weeks before on returning from church in the evening, violent abdominal pain and vomiting being the chief symptoms. This pain was repeated on the following Thursday and Saturday and to a less extent twice during the week that had just passed. On examination I found the abdomen slightly distended and a hard tumour to the right of the middle line above the pubes. The uterus was of normal size, pushed to the left and fixed there. A pelvic mass to the right of the uterus was felt to be one with the suprapubic swelling and only slightly moveable together with the uterus. The pouch of Douglas was moderately distended with fluid. The patient was feeble; the temperature on the evening of the 9th had been 100° F. and the pulse had been 120. The diagnosis was made of intra-peritoneal hæmatocele and free blood in the pouch of Douglas due to the rupture of an extra-uterine pregnancy. Operation was performed on the morning of Oct. 11th, 1892. There were present Dr. Leslie Phillips (who assisted me), Dr. Edge, Dr. De la Chérois, Dr. Williams, and Dr. Addenbrooke. Free fluid blood welled out on opening the abdomen. A ruptured pregnancy was found in the right broad ligament filling up the right side of the pelvis. The hæmorrhage from this (into the abdomen) had been partly confined by adherent, inflamed, and greatly thickened intestine. On separating this the outer coat of the bowel was at one part slightly torn and this was sutured with a continuous Lembert suture. A large mole of pregnancy was removed from the right side of the pelvis and the blood and blood-clot thoroughly washed out with warm water. No pedicle offered itself for ligation as the pregnancy had been subperitoneal. The pelvis was drained. At the close of the operation although very little blood was coming through the drainage tube the patient's condition was very serious. The pulse was 156. Nutrient enemata were ordered to be given every four hours. In the evening the pulse was still 156. On the morning of the 12th the pulse was 148; at 6 P.M. it was again 156. On the morning of the 13th the pulse was 144. At 4 P.M. on this day the bowels were moved and the pulse fell to 129 at night. From this date recovery, although slow, was uninterrupted.

In abdominal disease a persistently high pulse-rate is more than anything else the gauge of the severity of the patient's condition. It is worthy of notice that the severity of this case was as marked as it could possibly be compatible with final recovery. These cases of broad ligament pregnancy with secondary rupture are always serious. Before operation they cannot be differentiated from the cases of later rupture of the tube already considered, but at operation in the more common tubo-abdominal rupture the hæmorrhage can be at once arrested by ligature of the broad ligament and removal of the tube. In the broad ligament pregnancy with secondary rupture the case is different—there is nothing definite to tie unless one ligates special vessels, the operation takes longer, the surgeon has to trust to pressure and drainage and the final result is correspondingly less satisfactory and certain.

The tubo-ligamentary or broad ligament pregnancy may go on to term, and in its full development and during the stages by which it reaches that development it differs very materially from the tubo-abdominal or ventral pregnancy and will need further consideration from almost every standpoint. In tubo-abdominal pregnancy if the patient survive the fourth month and the dangers incidental to the extrusion of the fœtus from the tube she is free from further dangerous complications until the term of pregnancy is near its completion. In the tubo-ligamentary, on the other hand, owing to the higher position of the placenta and its liability to detachment from the growth of the pregnancy, the patient is never free from danger, and although many cases of this kind go on to term secondary rupture and fatal hæmorrhage are by no means uncommon or impossible at almost any stage of the development. In both varieties the period of the third or fourth month is a specially dangerous one because up to this time the pregnancy has received the support and shelter of the pelvis. When the pregnancy rises out of the pelvis into the abdomen the protection afforded by this is lost, and in the broad ligament form the gradual elevation of the placenta brings an additional source of danger.

If we look at the specimens and illustrations already taken as typical of tubo-ligamentary pregnancy in its earlier stages it appears as if the peritoneum had been equally separated in all directions by the growing pregnancy, and certainly in Dr. Hart's and Mr. Carter's case of mid-term pregnancy the perfect arch of peritoneum (seen in section) with a sulcus of equal depth behind and in front marks the case as one in which the pregnancy has been up to this point peculiarly symmetrical in its growth and in its displacement of the peritoneum. But it is not always so. Earlier or later in the history of most tubo-ligamentary pregnancies the tumour tends to invade or displace the layers of the broad ligament and the peritoneum continuous with these unequally. Sometimes it is the anterior fold of peritoneum which suffers the more displacement, and owing to the work of Dr. Berry Hart and Mr. Carter these are the cases which are at present more recognised and better understood. The peritoneum is raised from the back, side, and front of the uterus, it is entirely lifted away from the bladder, it is raised from the anterior and lateral abdominal wall, and in this way a good portion of the pregnancy comes to lie in front of the peritoneum. The pregnancy becomes in some places "sub-peritoneal" according to common anatomical language and may possibly be opened from the outside of the abdomen without the necessity of inclsing the peritoneum anywhere. The pregnancy is at first "sub-peritoneo-pelvic" and afterwards

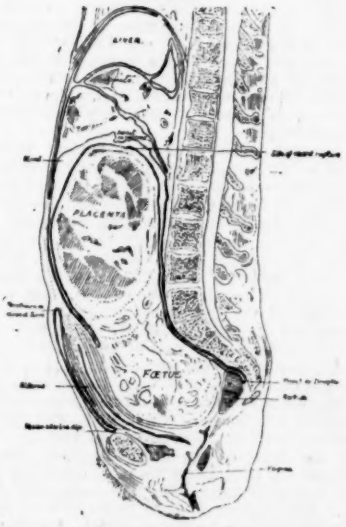
FIG. 27. FIG. 28. FIG. 29.



(if it continues to grow) "sub-peritoneo-abdominal." It cannot be adequately represented by any mere diagrammatic figure, as the tracing of the actual displacement of peritoneum is intricate and must obviously show considerable variations in individual cases. If, however, we take a sagittal section of the normal abdominal peritoneum to be roughly represented by the accompanying illustration (Fig. 27), and if we take the changes produced by a normal

(uterine) pregnancy to be represented by Fig. 28, the main or essential change produced in it by the growth of this form of tubo-ligamentary pregnancy may be approximately depicted by the following alteration (Fig. 29). Now if this diagram be compared with the actual condition found in a case of advanced sub-peritoneo-abdominal gestation, as represented in the frozen section illustration which by the kindness of Dr. Hart I am permitted to reproduce (Fig. 30), it will at once be evident that

FIG. 30.



in both the posterior layer of peritoneum is unchanged and that it can be traced uninterruptedly right down to the bottom of the pouch of Douglas. It is altogether anterior to this where the displacement of peritoneum has occurred, and although in the frozen section plate this displacement is seen to be complicated by the retention or "survival" of the vesico-uterine fold (apparently cut off from the rest of the peritoneum), yet the general trend of the displacement or lifting is exactly as shown in the illustration. The anterior part of the pregnancy is that more uncovered by peritoneum and might possibly be reached by the surgeon without its section. It is, of course, this form of pregnancy which since it was first fully described has been very generally accepted as accounting for all cases of advanced extra-uterine pregnancy. It is only right to mention that Dr. Berry Hart himself is in no way responsible for this and that nothing he has written so far as I know affords any foundation for this teaching.

As we have already seen, tubo-abdominal or ventral pregnancy has quite another explanation and is practically distinct from the tubo-ligamentary variety from the moment that the fœtus is extruded from the tube. Now, a considerable body of evidence has formed which tends to show that this sub-peritoneo-abdominal pregnancy which I have been describing is not only quite distinct from ventral pregnancy, but represents only a part, and that perhaps the smaller part, of the cases of true broad ligament pregnancy. For sometimes—and probably in the majority of cases—it is the posterior fold of peritoneum (and not the anterior) which undergoes the greater displacement and then the condition found in advanced gestation is altogether different. The peritoneum is raised from the side and back of the uterus. It is raised from the pouch of Douglas and from the rectum and lifted upwards from the posterior pelvic wall as far as the sacral promontory. This appears to mark the usual limit of displacement and the peritoneum thus raised appears to be sufficient to satisfy the requirements of the growing pregnancy to term. The anterior peritoneum is quite undisturbed and an illustration approximately depicting the change in the peritoneal relations will have this outline (Fig. 31). On opening the abdomen at or beyond the full period of gestation the pregnancy is seen to be everywhere covered by peritoneum much as the uterus is in normal pregnancy, and it is not until the hand is passed behind the sac of pregnancy that one realises that the base of it fills the pelvis on the side from which it is springing and that the peritoneum is reflected from above the pelvis directly on to the body of the pseudo-uterus. The real uterus is found beneath the sac of pregnancy and pushed to the opposite side. This condition has been recognised for some years as occasionally met with by the surgeon when operating for the removal of an extra-uterine pregnancy at term, but the explanation of the method of its production was until quite recently imperfect or wanting. In 1892 I reported a case and described the condition, drawing especial attention to the intra-peritoneal nature of the gestation-sac as viewed from the front after abdominal section. I also drew attention to the breadth of its base and to the position of the uterus and expressed my conviction that the gestation-sac in this variety of ectopic gestation was formed by a "local development of the Fallopian tube and broad ligament."[3] Absolutely true as this opinion was, being practically a rough generalisation of the account I have now presented, there was not at this time sufficient evidence to warrant any detailed history of the local development or displacement of the broad ligament. My own case and others like it had ended favourably and, so far as I am aware, no full or post-mortem investigation as to the exact relations of the sac had then been made. For more certain knowledge we are indebted to Dr. Dunning's[4] case, in which the sac of pregnancy was enucleated from beneath the peritoneum and the relations of the peritoneum to the sac and the amount and character of its displacement admitted of demonstration. From the record of this case there can be but little doubt that Dr. Dunning is right in his contention that this form of pregnancy is produced in the first place by a retro-peritoneal invasion from the broad ligament and that the majority of tubo-ligamentary pregnancies belong to this class or sub-division. My own case (already referred to) was as follows.

FIG. 31.

Mrs. H was a married woman, aged thirty-six years, the mother of three children, the youngest of whom was two years of age. The youngest was suckled for sixteen or seventeen months, menstruation recurring regularly during the greater part of the time. About one year ago the periods ceased and although some hæmorrhagic discharge occasionally took place this was irregular and scanty. The abdomen soon began to swell and the patient supposed that she was pregnant, but she had never clearly felt any movements of the child. On Feb. 17th, 1891, I saw her in consultation with Dr. H. S. Cook and made the following note: "The patient is very emaciated, sallow, and anæmic. Her tongue is catarrhal and tremulous. Pulse 104 (weak). She is feebly apprehensive, crying out at the thought of any disturbance of position or possible pain from palpation of the abdomen. She has been confined to her bed for more than two months with rigors, occasional fever (temperature 102° F.), frequent vomiting, and marked prostration. Examination (under anæsthesia): the abdomen is enlarged and prominent, the enlargement being more marked upon the left side. The line of greatest girth measures 42½ in. The enlargement is caused by a firm, well-defined swelling, dull on percussion and obscurely fluctuant to touch, which occupies about three-fourths of the superficial abdominal area. It is lateral in position, filling the whole of the left side of the abdomen below the umbilicus and extending over about two-thirds of the right half of the abdomen. The upper limit of the tumour is circular or crescentic in outline, it crosses the middle line half-way between the umbilicus and ensiform cartilage and is continued downwards over the right half of the abdomen until lost to the right of the pubes. The tumour, so far as it can be examined, forms a regular globe and is tense or resistant to touch except over a limited area to the right of the umbilicus. Here a kind of *ballottement* or rather pressure through fluid to a more solid part beneath, can be distinctly made out. *Per vaginam* the uterus can be felt enlarged, distinct from the tumour, and pushed to the left by it. The cervix is not developed as in the pregnant uterus.

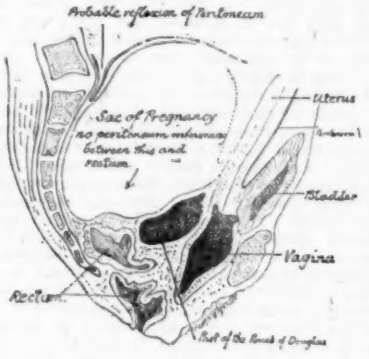
[3] British Gynæcological Journal, August, 1892.
[4] American Journal of Obstetrics, July, 1897.

The sound passes to 5 in. A large rounded mass can be felt in the pouch of Douglas; this appears to be one with the abdominal tumour. Auscultation of the abdomen for any evidence of placental souffle or fœtal heart-beat is negative. An alternative diagnosis is made of extra-uterine pregnancy with dead fœtus or ovarian tumour."

Operation was performed on Feb. 27th, 1891, when there were present Dr. Leslie Phillips (who assisted me) and Dr. Byron Robinson. I opened the abdomen over the area of least resistance already referred to, feeling assured that by so doing I should avoid the placenta. On dividing the parietal peritoneum, which was free from either displacement or adhesion, the wall of the tumour became visible, dark red or almost purple in colour. The hand could be passed in front of the tumour on either side and down into the pelvis. Behind the tumour it was stopped at the sacral promontory and the peritoneum appeared to be reflected from the spinal column upwards over the posterior surface of the tumour. I tapped the cyst with an ovariotomy trocar and evacuated several pints of dirty brown fluid. On opening the cyst a child was seen within it, dead and beginning to decompose. I removed it. The child was of full size and with the exception of some unnatural enlargement of the head was otherwise well formed. It was of female sex and weighed 6¾ lb. During the removal of the child the sac, which although thick was very brittle, tore slightly in a downward direction and I noticed that great care was necessary in dealing with it. The upper part was strictly intra-peritoneal and free from adhesions except some to the great omentum which were easily separated. It appeared to spring from the pelvis, having a very broad base with the uterus underneath it. Its interior was very foul and after washing this out with boric acid solution I finished the operation by sewing the opening in the sac to the abdominal incision. The placenta was not interfered with. The cord was left hanging out of the wound and the sac was drained. The placenta separated and came away about four weeks afterwards; this took place without any constitutional disturbance. The patient made a perfect recovery and has had a subsequent pregnancy perfectly normal in every respect.

Advanced tubo-ligamentary pregnancy must accordingly be divided into two sub-divisions or classes: (1) the anterior ligamentary, sub-peritoneo-pelvic or sub-peritoneo-abdominal pregnancy, and (2) the posterior-ligamentary or retro-peritoneal pregnancy. The first is established by post-mortem proof and frozen sections and does not admit of any doubt or question. The second rests mainly on operative evidence, but that evidence is confirmed by more than one operator, my own experience being exactly similar to that of Dr. Dunning, and I have very little doubt that in time this

FIG. 32.



Dr Barbour's Frozen Section.

will be supplemented by the confirmatory evidence of post-mortem dissection. Indeed, I have considerable grounds for believing that such evidence is already to hand and may be recognised in quite an old acquaintance—viz., the frozen section of an extra-uterine pregnancy, which is figured in Dr. Hart's and Dr. Barbour's Manual of Gynæcology (1883, p. 562-3). (Fig. 32.) In a recent visit to Edinburgh, when looking over the preparations belonging to Dr. Hart and Dr. Barbour, I was struck by the fact that in this section no trace of peritoneum could be found between the sac of pregnancy and the sacrum or rectum, and on more closely examining it with Dr. Barbour the condition found appeared to be consistent with the theory that the pregnancy had been tubo-ligamentary and that on the upper side of the section or the part removed the pregnancy had entirely lifted the peritoneum away from the pouch of Douglas and the rectum, while in and beyond the level of the section some remains of the pouch of Douglas still existed in front of the pregnancy. The pregnancy itself was therefore strictly posterior-ligamentary or retro-peritoneal, and we have accordingly anatomical as well as surgical evidence of the existence of this as a special form of pregnancy. If we turn again to Fig. 22 we shall see, I think, that this must also have been an example of the posterior or retro-peritoneal form of broad ligament pregnancy. Although the bony pelvis is not present the position of the sac as regards the uterus and rectum appears to make any other interpretation quite impossible.

There are two points worthy of further notice in the progress of a tubo-ligamentary pregnancy towards "term." The one relates to the development of the sac, the other to the position and integrity of the child and placenta. In the earlier months space for the growing pregnancy is gained (as we have seen) almost entirely by displacement of the peritoneum and this may be continued more or less throughout the whole period of gestation. In the later months another process of accommodation takes place and further space is obtained rather by development and extension or dilatation of the sac already formed than by further invasion of subperitoneal tissues, so that at term, although the pregnancy is entirely outside the peritoneum, it is not much more so than when *in utero*. For it must be remarked that every normal intra-uterine pregnancy is from the anatomical standpoint entirely subperitoneal throughout and yet the distended uterus forms an intra-peritoneal tumour. Similarly, although the base of the broad ligament pregnancy is entirely below the peritoneum, in most cases the upper part of the sac is intra-peritoneal and forms a tumour of considerable size. This applies to both forms of tubo-ligamentary pregnancy, particularly to the posterior or retro-peritoneal, where the sac of pregnancy forms a pseudo-uterus, which is almost entirely an intra-peritoneal tumour. To a less extent it may be seen in the sub-peritoneo-abdominal form also. If we turn again to the illustration (Fig. 30) of Dr. Berry Hart's and Mr. Carter's case of advanced tubo-ligamentary gestation we find that the fœtus is crowded down into the pelvis and mainly beneath the peritoneum, but the upper pole of the pregnancy containing the placenta reaches high into the abdomen and forms an intra-abdominal tumour covered by unbroken peritoneum and very comparable to the tumour formed by a pregnant uterus at a similar period of gestation.

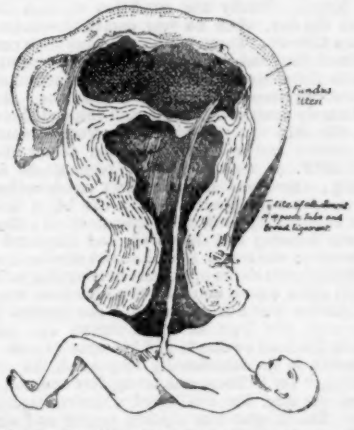
With regard to the placenta, I have only to draw attention to my belief that its position is inseparably bound up with the position of the Fallopian tube and that its final resting-place is therefore also the final resting-place of the tube. In the large section of advanced pregnancy figured by Dr. Hart and Mr. Carter traces of muscle tissue probably belonging to the tube were found, as Dr. Hart has told me, at the very top of the gestation sac. And this section shows, I believe, the greatest displacement of the placenta on record. In my opinion the original relative positions of the child and placenta are fixed at the time of invasion of the broad ligament or abdomen. In tubo-abdominal or ventral pregnancy the child is uppermost. In tubo-ligamentary or broad ligament pregnancy the child is undermost, its relative position to the placenta being fixed by the relative position of the tube to which the placenta is attached. If the relative position alters during the course of the pregnancy, as it evidently does to a considerable extent in the later stages of the posterior ligamentary or retro-peritoneal form of tubo-ligamentary pregnancy, it is because the sac develops posteriorly to the tube and therefore affords room for the child to pass behind the placenta and so to attain a higher position. Similarly, in the sub-peritoneo-abdominal form it may be quite possible for the child to pass in front of the placenta during the later stages of its growth. If the placenta occupy the highest part of the sac during the later stages of pregnancy it affords evidence of extreme dislocation of the tube, and such a case is liable to hæmorrhage and rupture however far advanced the pregnancy may

be. The placenta will suffer from local hæmorrhage and the pregnancy will be liable to terminate disastrously before the full period of development. In those cases which go to "term" the placenta is usually fully equal to the nutrition of the child, and though much has been written on the faults and lesions of the extra-uterine placenta as responsible for failures and defects of the extra-uterine fœtus I cannot say that the relationship appears to me to be by any means established. So far as my own experience goes the extra-uterine child at term in size and weight and general nutrition is in no way behind the average. But the child is often locally defective or malformed, such defects or malformations almost invariably corresponding to some long-continued pressure exerted by the bony skeleton of the mother on the extra-uterine fœtus. These malformations are most commonly met with in children of abdominal or ventral pregnancies. The children of ligamentary pregnancies, and particularly those of the posterior variety, may be free from any visible defect whatever.

3. *Tubo-Uterine Pregnancy* (*syn.*, *Interstitial Pregnancy*).

Tubo-uterine or interstitial pregnancy is a rare condition and there are only a few specimens which are readily available. Strictly speaking, this pregnancy is not really extra-uterine or only becomes so by rupture into the abdomen, but the pregnancy is "ectopic," outside the uterine cavity, and it is perhaps the most dangerous of all the forms of ectopic gestation. In most of the specimens of this disease or accident it appears to be the tissue on one side of the fundus which is mainly invaded by the growing pregnancy. The obstruction to the passage of the impregnated ovum and its primary attachment is probably exactly at the uterine ostium of the tube. This refuses to admit the passage of the "oosperm," the ostium is pushed before the growing ovum as it increases in size, and a burrow is formed into the uterine tissue (above or to one side of the cavity of the uterus), where the pregnancy finds a temporary resting-place and bed. This naturally raises the height of the uterus on the side affected, and in all the specimens I have seen the asymmetry produced by this has been very noticeable, the Fallopian tube of the non-affected side appearing to enter the uterus at a lower level midway between the (altered) fundus and cervix. In one of the best known specimens (No. 2517[90] of the Guy's Hospital Museum) the uterine appendages of the opposite side appear to have been removed with the unfortunate result that this asymmetry is not readily recognisable. The sac of pregnancy appears to lie across the fundus from right to left, and this is decidedly the impression given of the specimen by the illustration in Mr. Bland Sutton's book.[5] In reality, however, as the following more recent sketch (Fig. 33) will show, the unaltered

FIG. 33.



part of the fundus lies altogether to one side of this sac of pregnancy and the raw surface where the opposite appendages have been removed shows that there is quite as much distortion in this specimen as in that of the Royal College of Surgeons of England (4691), the other specimen in Guy's Hospital Museum (2517[90]), and in the specimen presented by Mr. Tait now standing in the Mason College Museum (Fig. 34). All show alike that the Fallopian tube and

FIG. 34.

fundus of the side affected are very considerably raised above the level of the fundus and appendages of the opposite side and that the tubes accordingly appear to enter the uterus at different levels. This asymmetry may be simulated by pregnancy in one part of a double uterus or by cornual pregnancy in a bi-corned uterus and, indeed, several supposed specimens of interstitial pregnancy have been found on close examination to be of this nature. In both of these conditions, however, there is always some angle, more or less well-marked, where the double organs join and this is of course absent in a tubo-uterine pregnancy.

A tubo-uterine pregnancy may continue to grow for several weeks to the end of the fourth month or even longer, between uterine peritoneum on the one hand and uterine mucous membrane on the other. Sooner or later rupture takes place, either downward into the cavity of the uterus or upward into the abdomen. The former method of rupture is a highly probable occurrence and if it occurred would presumably be followed by spontaneous healing of the wounded tissue and normal delivery at term, but in spite of the slenderness of the bridge of tissue usually existing between the sac of the pregnancy and the cavity of the uterus we have no positive demonstration that this has ever taken place alone. The only rupture that is known to occur is rupture into the abdomen (or into the abdomen and uterus simultaneously), and the result of this is always appalling. Diffuse hæmorrhage, worse (if possible) than that which takes place with early rupture of the tube, is the main feature of the pregnancy and hitherto this has always proved fatal in a very few hours. The only case approaching or possibly belonging to this class which I have met with in the living subject is the thirty-second of my series.

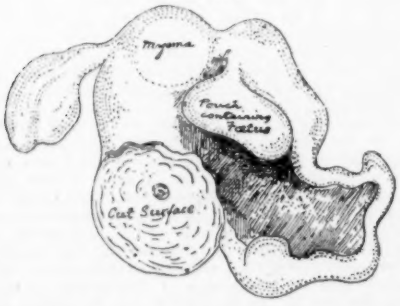
Mrs. I, aged twenty-seven years, had been married for seven years. She had had three children, the youngest of whom was nineteen months old. She was "regular" until May 6th, 1898, and since this date (until Sept. 10th) has had almost constant discharge of brownish blood. During the latter part of this time she suffered from abdominal pain and tenderness. Early in September this notably increased and the severity of the pain necessitated her confinement to bed. On Sept. 8th I saw her and found the abdomen distended and acutely tender. A fixed hard tumour was felt on the left side, having a crescentic outline and occupying the whole of the left inguinal region. On vaginal examination the mass was felt to be one with the uterus, but on passage of the sound no increase was found in the length of the uterine cavity. The patient stated that the swelling was rapidly increasing in size and the lump in the abdomen had only been noticed for a few days. The patient's lips were pale and her pulse was rather quick and feeble. A diagnosis was made of the left tubal pregnancy with hæmatocele and operation was done on Sept. 10th, 1898. On opening the abdomen a large sac was exposed formed by the expanded left cornu of the uterus, the left tube and the left ovary, and containing placental remains. This was adherent to omentum and intestine, the union with the latter being so intimate that separation had to be made by incision. When the sac was fully freed, opened,

[5] Surgical Diseases of the Ovaries and Fallopian Tubes, 1891, Fig. 103, page 349.

and cleaned it was seen that the inner part of the pregnancy had apparently invaded the uterine tissue of the cornu, and this, together with the base of the sac and broad ligament, was ligatured off from the rest of the uterus in four sections, leaving a long oblique wound on the left side of the fundus. The hæmorrhage was then controlled and the abdomen was closed, a drain being left in the pelvis. The patient made a good recovery.

On examination of the specimen removed it appears, I think, as if the pregnancy had been originally purely tubal and (possibly) a pregnancy of the outer part of the tube, that it had become firmly adherent to the uterus and ovary, and had quite secondarily invaded the side of the uterus in process of growth. If so, it is a special form of tubo-uterine pregnancy, which at present is unrecognised and certainly demands our attention. A specimen recently shown to me by Dr. Cullingworth, and already referred to in my first lecture, appears to me (at all events, so far as I have been able to examine it) to be of the same nature as regards the invasion of the uterus. This specimen is one in which a tubal (or tubo-uterine) pregnancy has been complicated with myoma of the uterus. The fœtus is contained in a curious diverticulum of the tube, while the placenta appears to have invaded the substance of the uterus. The upper part of the uterus (containing both pregnancy and myomata) was removed by hysterectomy and the following is a rough sketch of the parts removed (Fig. 35). In this

FIG. 35.



case there had been no intra-peritoneal bleeding at the time of operation. Whether Dr. Cullingworth would agree with me or not I am unable to say, but it appears to me that this is (like my own) a tubal pregnancy which has quite secondarily invaded the uterus.

In some of the older statistics of extra-uterine pregnancy cases of "interstitial" pregnancy figure largely and in far higher proportion than in any statistics obtained from later experience. Thus in Parry's 500 cases 31 are stated to have been "interstitial," while in Hennig's list of the same date (1876) in 150 cases 42 are reckoned as interstitial. These numbers must almost necessarily be largely mistaken, since any recent specimen is only of rare occurrence, and it is highly probable that some tubo-ligamentary and cornual pregnancies have been included by mistake. When a specimen is difficult to place, the position of the round ligament with regard to the pregnancy is sometimes of service in deciding its true character. This should be on the uterine side of a tubal or tubo-ligamentary pregnancy, while it should be on the other side or in the anterior wall of an interstitial or cornual pregnancy. The position of the round ligament as a guide to the differentiation of cornual pregnancy was first pointed out by Virchow, afterwards utilised by Professor Sir William Turner of Edinburgh, and has proved of very great value. It is not, however, an infallible guide. I have quite lately seen an intra-ligamentary tumour in which a large mass of the tumour was bulging between the round ligament and uterus. The normal relations had been so altered by the growth of the tumour that what should have been the uterine end of the round ligament was lost on the surface of the tumour and no direct connexion could be traced between the round ligament and the uterus. Yet the latter was intact and the tumour was removed without any injury to the uterus. This occurred in the hospital practice of my colleague, Mr. J. Furneaux Jordan (February, 1898).

THE PROGNOSIS AND TREATMENT OF URÆMIC CONVULSIONS AND COMA, WITH SPECIAL REFERENCE TO THE SENILE KIDNEY.[1]

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I WISH to record two cases of acute danger to life from convulsions and coma which seem to me to be worthy of publication. They have the added interest which attaches to recovery and they suggest certain pathological and therapeutical remarks.

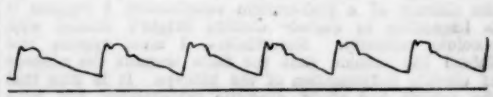
The first case was that of a clergyman, aged sixty-nine years, living amongst the Derbyshire hills, a great walker, accustomed to hard work, subject to worry and naturally a large eater. Prior to an attack of influenza with bronchitis early in 1891 he enjoyed excellent health but has since been conscious of some of the infirmities of age. Last autumn he complained of a feeling of pressure on the head which was aggravated by coughing, and coming in one night after a journey his family noticed limited facial paresis with dragging of the feet in walking. This, however, rapidly passed away. Six weeks later he became confused in mind when conducting a service in the church, repeated the same words a dozen times and had to be led down to the vestry. Next day he was quite well again. On March 12th, 1893, from which day the above account is dated, he complained of headache, was very restless, worked feverishly hard in his garden, and the colour of the cheeks and nose became of a deep purplish hue. He refused all treatment. On the 18th he wandered about all day complaining of his head and could not settle down to his books. About 5 P.M., as his son—a Lond. Univ. M.B., to whose careful observation I am indebted for this detailed account—was talking to him he replied confusedly, then absurdly, and soon quite incoherently. He was removed to bed and found to be very drowsy with great congestion of the face and nose. When spoken to very sharply he recognised those around him but immediately relapsed into stupor. There was no paralysis. During the night the drowsiness deepened; he recognised no one, lying on his back with closed eyes and stertorous breathing. He was, however, able to swallow teaspoonfuls of liquid food. Throughout the whole of the 19th and 20th he remained in this condition, having a convulsive seizure during the night of the 19th. I saw him in consultation at 9 P.M. on the 20th, the unconsciousness having then lasted fifty-two hours. Briefly the condition at that time and throughout the day, when he was carefully watched by his son, was as follows. There was intense purplish congestion of the skin of the head and neck and slight swelling of the cheeks with definition of the venules; the conjunctiva and lower lids were suffused and slightly œdematous; the pupils were moderately contracted, equal, and responded sluggishly to light; the skin was moist; reflexes were present; there was no ascites and no anasarca; the temperature was 98·6° and 99° F. on two occasions; respirations 24, deep and snoring; there was no pulmonary abnormality except that the air did not appear to enter the bases freely; the pulse was 88, regular, hard, and incompressible; the cardiac impulse was heaving and laboured, and displaced 1 in. to 1½ in. outwards; the aortic second sound was loud and ringing; the first sounds at the apex were overlapping rather than duplicated; there was no murmur; the abdomen was normal and the bladder was not distended. The patient lay upon his back with his legs at times drawn up, his hands clasped over his head or chest, and his eyes closed. If very sharply spoken to he occasionally responded, the only word uttered being "Yes." There was no rigidity and no paralysis. He resisted feeding, but swallowed whatever liquid passed the teeth. The tongue was thickly coated and dry; there were sordes on the teeth and lips and the breath was foul; there was no loss of control over the sphincters. The bowels were opened by enemas on the 19th and 20th. One curious fact, which I have noticed before in like cases, was the

[1] A paper read before the Manchester Clinical Society on Feb. 19th, 1895, and revised for the Stockport and District Medical Society's meeting of May 13th, 1897.

strength with which the *besoin d'uriner* asserted itself; once during the day he managed to wriggle to the edge of the bed and passed water on the floor. The urine was dark in colour, of specific gravity 1030; it deposited urates freely on cooling and contained the faintest trace of albumin. I was unable to obtain any at that time for further examination. Five grains of calomel were ordered at once, to be followed in the early morning by two-drachm doses of sulphate of magnesium till the bowels were freely opened. I also recommended venesection if matters did not mend. He took the calomel and two doses of salts during the night. About 5 A.M. the coma was so profound and the patient's condition so critical that venesection was contemplated. Between 5 and 6 o'clock, however, he passed three or four large, loose stools, and towards 6 o'clock a comparatively quick change for the better occurred. The cyanosis lessened, the breathing became quieter (26), and the pulse was much more compressible, "running," and it increased in frequency to 102. Between 6 A.M. and 8 A.M. there were gleams of consciousness and apparently natural sleep. At 9 A.M., after sixty-four hours' stupor, the patient woke up, recognised his usual medical attendant, took a glass of milk in his hand, drank it, and asked one or two questions in a perfectly rational manner. Later in the day, of his own accord, he made arrangements for the following Sunday's service. He had no recollection whatever of the events of the past three days. The bowels were kept open, the pulse tension became normal, and shortly afterwards he resumed his work. A year later he had supper at my house and was mentally and physically all one could desire. Two years after the attack he called and reported himself, now in the "seventies," as preaching once every Sunday, able to walk a couple of miles easily, and as having his usual brain power and excellent digestion. I found the pulse to be 76 and regular, tension medium, inclining to high; left cardiac dulness just within the nipple line; the second sound somewhat accentuated at the right second cartilage but not noticeable to the left of the cardiac impulse. The sounds were otherwise normal. He said he usually rose once a night to pass urine, could empty the bladder completely, and had had no sign of cystitis. The prostate was, however, somewhat enlarged. The urine was examined from time to time by his son and by myself. The amount appeared to be about normal and its specific gravity averaged 1018 or 1020; there was no deposit and no casts; standing on nitric acid it gave no reaction; occasionally with the nitric acid and sulphate of magnesium solution a faint haze was seen, but no definite ring of albumin was ever demonstrated. The son informed me that his father habitually neglected the preventive treatment advised; he ate heartily, though his friends limited the *menu* as much as possible, and beyond an occasional aperient eschewed medicine; otherwise the end might have been much longer deferred. To show his activity I may mention that on the day before his death he took two cripples to Manchester to endeavour to find a home for them. On July 16th, 1895, he had a severe apoplectic seizure at 9 A.M. and died the same afternoon from cerebral hæmorrhage. I did not see him and no post-mortem examination was held.

The second case is of quite a different character. The patient was a married man, aged forty-seven years, whose family history was satisfactory. Up to thirty-five years of age he was free in his habits, but since that time he has been very steady and a strict total abstainer; he was always very strong and muscular. On Jan. 19th, 1893, his master, a medical man, noticed that his eyes were puffy and that his face was somewhat swollen, so he ordered him to bed. The patient himself was not aware of the change. There was no other dropsy. On examination the urine was found to contain some albumin. Under the daily administration of drachm doses of compound jalap powder he improved somewhat, but in spite of the purgation suffered from headache. On Jan. 29th at 10 A.M. he was seized with severe uræmic convulsions; the face turned very red, then purplish in colour. He remained in a comatose condition all day, except at noon, when he complained of frontal pain so intense that it made him scream. Very troublesome vomiting set in. At 5 P.M. he had another fit, after which he was very rough, tried to get out of bed, and had to be held down. Elaterium in ¼-gr. doses was administered without result, probably owing to the fact that the stomach rejected everything, even cold water. At 11 P.M. he was again in severe convulsions and remained unconscious till 2 A.M. About midnight ½ gr. of pilocarpin was injected subcutaneously, and the dose was repeated in fifteen minutes. This produced very profuse perspiration. It was the opinion of the practitioner in whose service he was that the injections saved his life, as he was in a most critical condition at the time. In the morning he was described as being calm, conscious, and suffering only slightly from headache. He was then washed, well rubbed, enveloped in warm blankets, and driven down to the Manchester Royal Infirmary to be under my care. It is interesting to note that in spite of the above statements as to apparent consciousness the patient declared that he remembered nothing after the onset of the first fit till he found himself in bed in the infirmary. The condition on admission and further notes taken by my excellent clerk, Mr. E. W. Battle, were in brief outline as follows: "The patient is a strong, well-built man; face red, partly from exposure; lips purplish; no œdema of eyelids or other dropsy. He is drowsy; complains of intense headache and dimness of vision; exhibits marked amblyopia; discs and retinæ normal. Respirations 16. Considerable amount of frothy sputum; physical signs over the lungs normal. The heart's impulse is of medium strength, somewhat diffused, visible in the epigastrium, and, like the dulness, extends outwards to the left nipple line; second sound accentuated at the right base and both sounds at the left apex; no murmur; pulse 68, regular, small, high tension" (see Fig. 1). "Tongue dry, slightly furred; patient thirsty.

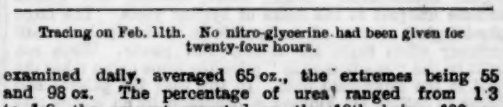
FIG. 1.



Tracing shortly after admission, Feb. 1st.

Some pain and flatulence after food; no vomiting; bowels kept freely open—e.g., five times between Feb. 1st and 2nd. Urine: amount, 55 oz.; specific gravity 1020, acid, clear above, heavy deposit of urates; small amount of albumin, too small to 'Esbach'; no blood, epithelium, or casts to be found. Temperature normal throughout." The patient's weight averaged just under 12 st. He remained in the infirmary for three weeks, and was under observation a month longer at the convalescent home. No further symptoms developed. The high arterial tension and headache continued throughout, though varying in degree from day to day and responding markedly to nitro-glycerine tablets (Figs. 2 and 3). The urine, which was

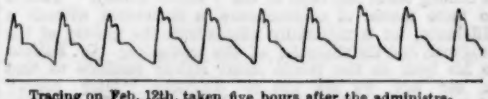
FIG. 2.



Tracing on Feb. 11th. No nitro-glycerine had been given for twenty-four hours.

examined daily, averaged 65 oz., the extremes being 55 and 98 oz. The percentage of urea ranged from 1·3 to 1·6, the amount excreted on the 16th being 480 gr.

FIG. 3.



Tracing on Feb. 12th, taken five hours after the administration of a tablet of nitro-glycerine.

The albumin disappeared by the 17th. No casts were ever discovered. He steadily improved at Cheadle, though the pulse tension remained above normal to the end. He returned to the infirmary for examination in June, 1893, came

to the Manchester Clinical Society two years later, and I have had specimens of his urine up to May, 1898. During the five years which have since elapsed he has had no symptom of uræmia, not even headache. His sight is good, the urine is normal in character and amount, the specific gravity being usually 1022, with 1·85 per cent. or more of urea, and there is no need for nocturnal micturition; indeed, he enjoys good health and is able to follow his employment. Though naturally a hearty eater he has been sparing in his diet ever since the attack and has also paid special attention to the regularity of the bowels.

And now having given my texts I wish to deal with them (1) clinically, (2) pathologically, and (3) therapeutically.

With regard to the first of these heads the marked cyanotic redness of the face seen in both cases might in earlier days have provoked the diagnosis of cerebral congestion. Knowing, however, little or nothing of the real condition of the brain we are now accustomed to point to the prominent cardio-arterial phenomena and to blame the kidneys for failing to purify the blood. Nevertheless, in not a few cases of convulsions and coma the urinary evidence, in my opinion, fails to substantiate any serious structural change in the kidneys and the happy sequel confirms the acquittal. Take the first case already detailed. We have a man whose cells—for physically we are a collection of cells with their cast-off clothing—were sixty-nine years of age and therefore presumably somewhat the worse for wear. The sixty-four hours' coma with convulsions from which he suffered can only be termed "uræmic." The diagnosis of acute Bright's disease was out of the question. In the absence of a post-mortem examination I suppose it is impossible to exclude chronic Bright's disease with absolute certainty. Nevertheless, I must express and defend the opinion that the facts warrant the absence of chronic inflammation of the kidneys. It is true that the patient had slight prostatic enlargement, but none leading to bladder distension or urinary change. It is true also that he showed signs of so-called uræmia for some time before the attack referred to, and that during the attack high arterial tension with definite cardiac enlargement were prominent phenomena. But he lived for two years and four months after the attack under medical observation and was in active work up to the day of his death. So well did he feel that it was impossible to persuade him to adopt, except very casually, the dietetic and medicinal preventive measures which were prescribed. During this period there were no diuresis, no dropsy, no eye phenomena, no discovery of renal casts; albumin, though carefully looked for, was never with certainty detected. Indeed, in no respect did the urine suggest Bright's disease. The pulse tension, however, varied considerably, tending at times to range distinctly high, and his spirits, mental power, and companionability played see-saw with the tension of his pulse. Now, I hold that it is quite unnecessary to invoke an inflammatory change in the kidneys to account for the symptoms. I rather judge that through age his kidneys were physiologically feeble and unable to excrete properly the nitrogenous waste of a hearty eater. With increasing years the vitality of the active protoplasm of the different organs deteriorates. Brain, heart, muscle, and glands become unequal to the tasks of bygone years. The large physiological reserve of earlier life is gradually lost until ordinary effort taxes the tissues' full power. When not built on the "one-hoss-shay" principle some organ takes the lead in the downward path. In this case the patient had begun to outlive his kidneys, a condition by no means rare and of extreme clinical interest. Though most of us have been brought up to regard uræmia, especially in old people, as the outward and visible sign of Bright's disease I venture to question the correctness of the inference and prefer to consider cases such as the above, in as far as they are renal, as coming under the head of the "senile kidney." This is no mere matter of nomenclature, a distinction without a difference, for it materially affects both the gravity of the prognosis and the character of the treatment. Dr. Balfour in his book on the Senile Heart rightly reminds us that in old age we are apt to diagnose "fatty heart" more frequently than we actually find it. It should be called "old muscle" which under adverse conditions may fail, but if relieved of strain will go on again in its quiet way as well as ever. So I hold that the senile kidney is not necessarily an inflamed kidney or even in the strict sense a diseased kidney; it is simply an old kidney, equal to some work, but not to full work. When overtaxed it may give rise to the most alarming and critical uræmic phenomena. The diagnosis of "Bright's disease" and the damper of "old age" take the edge off the treatment. It is assumed that the finale has been reached and that active interference is undesirable. Now it is in just such cases as these that the cerebral disturbance may be quite out of proportion to the renal failure, and old age, instead of a bar to recovery should be our hope and a stimulus to action. If the crisis be tided over and the kidneys be judiciously humoured many years of usefulness and quiet enjoyment may be added. Apart from definite organic disease the body is loth to die. There is an art in growing old with comfort and safety. As Oliver Wendell Holmes hints, old age has to leave many cards on us before we acknowledge ourselves at home to him. We are slow to recognise that the day for records is past, that the play given by functional power in excess of need is no longer ours. A failing heart pulls us up as we hurry to the train or tram and we make good resolutions and limit ourselves to respectable leisurely golf or the mildest of cycling. But a failing kidney, unless it act through the heart, does not worry us much. There may be no consciousness of any departure from robust health. The full pulse, with tension inclining to be high and in course of time arterial thickening, is commonly considered to be "a good strong pulse," and was thus described to me by an elderly gentleman yesterday. There is neither dropsy nor albuminuria, though the lower lids at times may be suspiciously full. The urine is variable in quantity, inclining to deficiency rather than to excess, of full colour, and of average or high specific gravity. There is, indeed, nothing to lead the patient to the medical man, and yet were the possessor of senile kidneys wise and wealthy he would visit his physician daily, and regard him as the purveyor of health rather than the curer of disease. I say "he," for the majority of the cases are men, with whom approaching age curtails outdoor rather than indoor activities. The grey-haired boys are more apt to forget the lapse of years amid the festivities of the dinner-table than in the gymnasium or athletic ground. The knife and fork are wielded as energetically as ever, and the health of friends is drunk to the detriment of the drinker. Literally, in cases recently seen by me, roast beef, plum-pudding, mince-pies, and "good old port" are still the order of the day when impaired excretion calls for abstemiousness. Old habits die hard and obstinacy is not confined to children. When the attack does come it is often quite as much the result of undue stoking as of a blocked funnel. There is no doubt in my mind that habitual over-eating and drinking, or even the continuance in old age of the table habits of adult life, conjoined with senile kidneys, will produce many of the systemic changes usually attributed to chronic Bright's disease. This specially applies to the cardio-arterial and cerebral phenomena. The blood-contamination which is a tolerably fixed factor in true renal disease is, of course, more fitful in its senile "double." Hence the course of the former is more definitely progressive than is that of the latter. Still, I am inclined to think that the arterial thickening found in elderly persons of full habit often arises in this way. The associated cerebral affection may be gradual and cumulative, as in the case of the clergyman, or sudden in its onset. It is characterised by coma and marked congestion of the face and neck with or without convulsions and passing paralytic phenomena. That paralysis may occur in uræmia and in this allied condition, independently of a hæmorrhagic focus, is surely placed beyond doubt. About the year 1880 I saw a man suffering from chronic interstitial nephritis who again and again was brought home from business in uræmic coma. On one occasion he also developed hemiplegia and hemianæsthesia and when in that condition was seen by the late Dr. James Ross. The paralysis and coma passed off coincidently and completely and were followed by delusions which lasted several days. He tried to discharge all in attendance because of the clocks carried about in their interiors, the ticking of which greatly annoyed him. Dr. Ross agreed with me in attributing the whole to the uræmic condition. Eighteen months ago I saw a man, in consultation, who, when in the act of drinking healths after dinner, according to his custom, fell down in a state of unconsciousness. Though comatose he strongly resisted all attempts to convey him to bed. When seen later in the day he was found to have an extremely congested face, pupils equal but sluggish in reaction, a pulse of very high tension, and heart-sounds to match. There was definite right hemiplegia, affecting the arm more than the leg, and great

irritability, in spite of complete loss of consciousness, so that it was difficult to keep him in bed. The *besoin d'uriner* asserted itself. The temperature rose to 102° F. We therefore gave him minim doses of tincture of aconite and grain doses of calomel. I confess I was inclined to regard the condition as one of organic lesion, and my friend was the first to suggest that the case was almost on all fours with that of his father. Anyhow, as the arterial tension yielded both coma and paralysis vanished simultaneously. The patient was unconscious for three days, but after the recovery of consciousness he desired to get up and rebelled against the enforced rest. The urine was acid, high-coloured, deposited urates, and did not contain albumin. This patient is still alive and in his average health. The urine is acid, high-coloured, its specific gravity is 1022, and it contains neither albumin nor sugar. It is interesting to note in all such uræmic conditions that many apparently voluntary acts and intelligent responses to questions leave absolutely no impression on the memory, just as in the post-epileptic state. The other day one of my out-patients after an epileptic fit walked several miles in his shirt-sleeves with an axe over his shoulder before he came to himself.

Sir William Broadbent in his very able and interesting book on the pulse lays great stress on the association of convulsions with high arterial tension and suggests that cerebral capillary stasis is the immediate antecedent. Headache and coma are equally the product of vascular tension, and if the intense congestion of the head and neck be any guide to the intracranial condition the explanation just given would certainly apply to all the cases I have seen which were independent of true Bright's disease. It is evident, however, that Sir William Broadbent holds that the high tension producing such convulsions may be quite independent of the kidneys. In other words, the impurity of the blood is due to over-production rather than to imperfect elimination. Whilst acknowledging the possibility of such an origin I am not prepared to exonerate the kidneys so completely in my cases as Sir William Broadbent seems disposed to do in his. Indeed, I believe that just as the cerebral condition is the outcome of the high arterial pressure so the latter indicates the retention within the system of excretory matter which even though in excess physiologically healthy kidneys could easily eliminate. Almost invariably the high tension is of some standing and the gathering storm gives its warning. There is a state which suggests a standing cause, the man having no superfluous kidney power. All the cases are met with in middle or later life and the younger the patient the more certain are you to find either free living—which undoubtedly tells on the kidneys—or actual renal disease which more seriously limits urinary play. This seems to apply to most, if not all, of the cases quoted by Sir William Broadbent. I believe that many men who habitually imbibe wine and spirits and eat largely have at forty or fifty years of age kidneys which for excretory power must be classed as sixty or seventy years old. It is in the middle and later life that alcohol finds a man out. Such persons innocently expect a bottle or two of medicine to set them right, forgetting the number of larger bottles emptied in the past and the length of time devoted to the process. It is this renal defect which gives point and more or less continuity to the contamination of blood due to the otherwise comparatively harmless excesses in diet.

What the exact element is which raises the arterial tension I do not know. It may be a single factor, a varying factor, or a combination of factors, and it is possible that at times its retention may be compatible with the elimination of the other urinary excreta. Anyhow the cerebral phenomena associated with the senile kidney suggest to me a simpler form of blood contamination than that found in the terminal uræmia of true Bright's disease. That the high tension is a recognition of the need for excretion in a body awake to its needs appears to me plain, but the indication at present is general rather than special. I do not believe that uric acid is the key to this secret chamber.

And now let me formally restate the position taken in this paper. In old age and premature old age there may be a curtailment of renal excretory power without any of the urinary signs of Bright's disease. This functional failure is associated with diminished and condensed rather than with abundant pale urine. It is apt, especially under the stress produced by repeated excesses in diet, to give rise to high arterial tension, cardio-arterial changes, and marked cerebral phenomena. The prognosis of uræmia occurring under such conditions is far more favourable than in true Bright's disease. Apart from intercurrent disease cerebral hæmorrhage is the most common terminus. A post-mortem examination is rarely made, the cause of death being evident, and if the body be examined the kidneys, when not definitely sclerosed, are exonerated, and age and arteries alone credited with the final result. Should any structural change, however slight, be found, latent Bright's disease is taken to be a sufficient solution of the problem. To the clinical picture drawn above, which is by no means a rare one, I am accustomed to give as a name the "senile kidney." Since I first read this paper the need for the definite recognition of such a condition, *especially in its relation to uræmia*, has been strongly corroborated by the volunteered experience of medical friends. That uræmic coma and convulsions are not always associated with Bright's disease is frequently illustrated in the puerperal state. During pregnancy, owing to fœtal life and metabolism, there is a call for increased maternal excretion and after birth uterine involution and other changes predispose to undue blood contamination. Should true kidney disease exist one can easily understand how acute disturbances may arise. But in a large number of cases puerperal convulsions do not come under this category. They are purely passing phenomena and leave not a wrack behind. When the blood is surcharged with excreta a comparatively slight renal inadequacy suffices to ensure an explosion. Pressure prior to or at birth may interfere with functional activity, the toxins themselves may produce temporary paralysis of renal cells, &c.—somehow a second factor arises and high tension with coma and convulsions is the result. But it is a case of "*Sublatâ causâ tollitur effectus*": appropriate energetic treatment tides over the crisis and the patient's life prospects are unimpaired. I am inclined to think that such attacks occur apart from pregnancy and in the other sex. The second case which I narrated would undoubtedly be classed as acute Bright's disease. But the only prominent phenomena were those of severe uræmia with prolonged arterial tension, phenomena which indicate not inflammation of the kidneys but simply retention of the urinary excreta. The signs of renal congestion and tubal inflammation were at a minimum. Beyond some puffiness of the eyes at the outset there was no dropsy. After admission to the infirmary there was never more than a trace of albumin in the urine. Blood, renal epithelium, and casts, though carefully looked for, were never found, even when inorganic deposits were present to carry them down. If present at all such elements must have been few and far between. I myself was inclined to regard the case as one of chronic interstitial nephritis, the latency of which is known to all of us. But time appears to be solving the problem adversely to this conclusion. Five years have passed; at no time during that period has the urine been found to be in any way abnormal. No albuminuric retinitis or other register of renal disease has developed and the patient enjoys good health. We have here a hearty eater who, in earlier years, was very free in his habits and who probably thus took the edge off the excretory powers of his renal protoplasm. The kidneys receive a slight check and phenomena altogether out of proportion to the renal change rapidly develop. At present he lives in the regulation of his food and bowels, as knowing himself to possess kidneys equal to ordinary demands but not fit for record excretions.

Let us now turn for a few moments to the pathological side of this subject. At times elderly kidneys are described by the morbid anatomist as "somewhat fibrous." It does not, therefore, follow that we are to call the disease chronic interstitial nephritis. Fibrosis has a wider significance, and it is quite unnecessary to conjure up the spirit of inflammation to account for its presence. Between those who hold that all renal sclerosis is inflammatory in origin and that the associated cardio-arterial change is a dependent sequel and those—like Gull and Sutton and Balfour—who would make the kidney disease a mere degenerative item in a primary arterio-capillary fibrosis there is a reasonable *via media*. That chronic interstitial nephritis is a well-established inflammatory affection due to definite irritation, frequently scarlatinal, and responsible for cardio-arterial, ocular, and other remote phenomena, there can, I think, be no shadow of a doubt. But that all renal sclerosis owns a similar origin I do not believe. Many pathological facts seem to suggest that whenever there is diminution or loss of functional power without coincident loss of blood-supply; whenever, that is, the protoplasm of the master tissue fails in its activities whilst the nutritive

supply is maintained, there is a tendency to overgrowth on the part of the connective tissue. It is reasonable to suppose that vascularity in absence of the usual metabolic and excretory processes may unduly stimulate the connective tissue cells. The blood, accustomed to dispose of its goods to the active protoplasm and being foiled in its efforts, seeks another market, and presses its wares on the interstitial tissue; this having no active function can only show its overfeeding by overgrowth and by the display of its anabolic power in the manufacture of intra-cellular fat or extra-cellular fibres. The best example in a tissue not given to adiposity is seen in the descending lateral sclerosis which follows a lesion of the upper motor arc. We have a tract of living protoplasm cut off from its trophic cortical cells and thus rendered functionless by a lesion which does not interfere with its blood-supply. Certain brain scleroses in early life seem to me to own a similar origin. It is not, of course, suggested that the vascular factor is the only factor in the production of such pathological results. I do not forget that blood-supply is largely a question of nerves and that independent trophic influences are at work; in short, that the problem is complex. In this connexion the periodic nervo-vascular tension associated with functional activity must not be forgotten. We know that the former may occur without the latter, as when the submaxillary branch of the chordatympani is stimulated after the administration of atropine; the vessels dilate, the gland is gorged with blood, but no secretion follows owing to the paralysis of the cells. It may be that the "empty stomach" of a man long past his usual mealtime is due to this tension awaiting cell activity. This unfulfilled expectation when often repeated is undoubtedly a cause of gastric disease, not simply because the organ fails to rise to the occasion when the food does come, because hope deferred maketh the stomach sick, but possibly also because the natural relief to the nervo-vascular erethism given by periodic cell activity and secretion is not experienced, and the unfulfilled desire to provide a functional blood-supply is partly diverted to the connective tissue elements. This question hardly arises in connexion with the kidneys, the cells and glomeruli of which are always in action, but in these organs other factors, even more potent, come into play. Not only have they a blood-supply out of proportion to their size, but also their failure in function produces a general rise of blood pressure with special local vascular stress. Diminished excretion entails increased blood-supply. Should the glomeruli and tubal cells be unable to respond to the stimulus the increase of the interstitial elements is hardly to be wondered at. This hyperplasia may occur, but not necessarily, in senile cell failure. That lead, alcohol, and other poisons may produce renal sclerosis through primary premature loss of vital power in the excretory protoplasm I firmly believe. The gout which accompanies plumbism bears witness to the imperfect excretion. Strong alcohol acts as an irritant and produces small-celled inflammatory exudation, as is well seen round the lobules of the liver when spirit, almost "neat," is frequently poured into an empty stomach on the "hail fellow, well met" principle. Being rapidly absorbed, and only diluted with the blood in the portal vein, the liver experiences its full irritant power; before reaching the other organs of the body the alcohol is mixed with the blood in the superior and inferior cavæ and exposed to excretory areas, so that its power as an irritant is very much lessened. Unfortunately, moderate drinkers measure the effect of alcohol on the system by its action on the muscles and the brain, and so are often able to carry and guide home a drunken and disreputable liver without any compunction. Primary alcoholic irritative interstitial nephritis is therefore not a common occurrence; it is, however, occasionally seen in very heavy whisky drinkers, though commonly overshadowed by the hepatic lesion. Many persons who continuously imbibe more dilute alcohol, as opposed to the "nippers" already referred to, exhibit widespread pathological changes which, in part or at times, are irritative in character, but which may largely be explained in another way. Short of primary interstitial irritation, I believe chronic alcoholism takes the edge off the powers of the more highly specialised protoplasm, notably affecting that of the nervous system and kidneys, which is more staid in character and does not show the rapid reproductive changes seen in the cells of the blood, alimentary tract, &c. As the result of the prolonged influence of alcohol we have curtailed functional activity, diminished vitality, and lessened power of resisting disease. In the nervous system this discounts mental and physical vigour and renders a man of less use to himself and to the community. In the kidneys, where its incidence is possibly greater than on the remaining organs on account of the relatively large blood-supply, it entails the consequences of premature senility. Physiological cell-failure may alone result or, in accordance with the principle already laid down, fibrosis may be superadded. Though it may be difficult in alcoholic peripheral neuritis to prove that diminished axis-cylinder power precedes the interstitial nerve changes, in the parenchymatous paralysis following diphtheria, &c., which are painless from the start and plainly toxic and central, the hyperplasia of the endoneurium is so evidently secondary that it gives countenance to one's views whilst illustrating the general theorem. Anyhow, the relation of diminished functional power with continued blood-supply to fibrosis deserves attention. Should the quality or amount of arterial blood transmitted to an organ be diminished without primary failure of the functional protoplasm, fatty metamorphosis, without fibrous thickening, usually follows.

Where the curtailment of nerve energy, vascularity, and functional activity are coincident simple atrophy is the natural sequel. The marvellous involution of some uterine fibroids at the menopause is a sufficient illustration. A year or two, as I have recently witnessed, may thus render impalpable a large abdominal tumour. But where the blood-supply is retained and function lost the connective elements may revel in the unwonted feast, as in uterine hydatids, where, through failure of the fœtus, the blood-supply is diverted from its main object and the body forgetting to turn off the vascular taps the current is concentrated on the connective tissue, here of the "mucous" variety. This principle seems to have wide applications in pathology and I am glad to see that Professor Adami, in the excellent article on Inflammation contributed to vol. i. of Professor Allbutt's System of Medicine, is disinclined to regard all sclerosis as inflammatory in origin.

Thirdly, dealing with the therapeutics of my text, the prevention and treatment of uræmia in senile kidney and other renal failures may be considered under two heads: (1) attention to diet and (2) measures calculated to aid excretion, to lower arterial tension, and to quiet convulsion. Though of the greatest importance a few passing remarks must suffice for the former. Temperate living in old age would lengthen many a life, warding off apoplexy and uræmia. Indeed, the marked difference in personal comfort and vivacity brought about by a change in table habits has often astonished both the patients and their friends, as the former entirely ceased to discuss whether life was worth living. This need not entail the adoption of liquid or invalid diet, for in advanced life the stomach usually secretes and digests more satisfactorily when stimulated by solid food than when treated to "slops." The sum total of food should be restricted within reasonable limits. This is more important than any specific act of self-denial. If an egg or fish be allowed for breakfast animal food should be permitted at one subsequent meal only, and that not too late in the day. To prevent undue condensation of urine the amount of liquid imbibed should average 40 fluid ounces and be taken chiefly between meals lest it dilute the gastric juice. Intoxicating liquors are better forbidden; if insisted on a small amount of diluted dry spirit during the chief meal and at bedtime may open the tardy stomach arterioles and favour sleep. That vascular tension is thus kept down is matter of observation. Prolonged uræmic coma, just like an attack of gout, is a time of diminished ingestion, and the latter no doubt aids the recovery.

Under the second head I wish to discuss in more detail the value of (*a*) purgatives; (*b*) chloroform, bleeding, and the nitrites; and (*c*) diaphoretics. The importance of attention to the bowels cannot be over-estimated. Not only does regularity greatly lessen the chances of secondary fermentations and toxin formation, but by purgation we can turn out of the body bile and half-digested food and also command the radicles of that vein which carries the crude products of digestion to the great provident dispensary of the body, the liver, where for weal or woe so many mixtures are made. Modern abdominal surgeons, whose one aim in the old days was to keep the intestines quiet, are now beginning to realise their value in elimination and to substitute calomel and salines for opium. They talk of "the race for the bowels" and use the intestine as if it were a drainage-tube. I firmly believe that in commanding the liver and intestines we hold the most important excretory area in the body after

the kidneys. In this respect the views of the late Dr. Mahomed were undoubtedly correct. Indeed, the efficacy of purgation in high arterial tension and uræmia is acknowledged by all, but there is still considerable diversity of opinion as to the relative value of the different drugs. May we employ calomel? Sir William Broadbent places it *facile princeps* amongst the drugs which lower arterial tension and strongly advocates its use in from 2 to 5 gr. doses. Many other writers—e.g., Dr. Whitla in his excellent Dictionary of Treatment—only mention it in order to warn their readers not to prescribe it, and my early training and teaching ran in the same groove. Now I frequently exhibit it when I have reason to regard the uræmic phenomena as out of proportion to the organic renal change. Should the cells of the kidney be much degenerated—that is to say, in parenchymatous disease with dropsy, marked albuminuria, and abundant fatty epithelium and casts—the drug is distinctly dangerous. Quite recently I saw such a case in which 5 gr. of calomel had been given. It stopped the uræmic vomiting, relieved for the time the headache, and lowered the blood tension, but the marked swelling and tenderness of the salivary glands and gums, the furred, foul tongue, &c., gave ample witness that the administration was a mistake. In the terminal uræmia of Bright's disease calomel acts as a poison and the more definitely the cerebral phenomena depend on organic renal failure the more doubtful the use of mercury. The condition of the kidneys *quoad* Bright's disease is in my opinion to be our guide. It is the fact that severe convulsions and coma may be associated with a minimal or passing renal defect that makes calomel admissible. That all such cases have exactly the same pathological substratum I am far from believing, but the use of calomel is not limited to those conditions in which the renal trouble is only transitory. Whenever the blood tension is high, the urine is passed in fair quantity, of average or high specific gravity, deposits urates and contains only a small amount of albumin, I employ calomel without hesitation. Taken alone the amount of albumin present is of little importance. In puerperal convulsions I have seen very highly albuminous urine return to the normal within a few hours. Numerous and varied renal casts must, however, give us pause, more especially if they testify to chronic tubal change.

In senile failure, and in the middle and later stages of chronic interstitial nephritis, we must remember that the system is sensitive to mercury and therefore recall Dr. Ringer's remarks on minimal dosage. In early days I saw 15 gr. and 20 gr. of calomel given as a purge with excellent results. The Cheadle bull-dogs, of local repute, are said to owe their ferocity to this drug. Such treatment in renal failure could only be regarded as tempting Providence. One grain is often an ample dose. Quite recently I saw a gentleman, well in the "teens" of stones, who smiled at the powder in the evening, but assured me that his respect for it was considerably raised on the following morning as it kept him from business. A lady, aged seventy-six years, who was under my observation for several years with gouty cardio-arterial and retinal changes, was severely purged by 1 gr. of calomel, but so greatly relieved thereby that for three or four weeks after each dose she seemed to have taken a new lease of life. The same lady for three years took 5 gr. or more of pulvis ipecacuanhæ compositus every night with great advantage, a method of administering opium in Bright's disease which I consider to be safer than any other. As commonly happens this patient died from an acute and entirely independent affection.

Calomel undoubtedly reduces high arterial tension and relieves the troublesome cardiac, pulmonary, and cerebral phenomena associated with it. It takes several hours to act, but the effect produced is less evanescent than with other drugs. How calomel acts I do not profess to explain. That mercurials will often clear a dense uratic urine is known to all. Elimination of bile by the bowel is probably the principal part of the programme. Anyhow, in dealing with high tension calomel is superior to all other purgatives, including blue pill. It sweeps and drains the intestines as well as the hepatic ducts and in my opinion differs materially from crude mercury in its action. In a case of obstructive jaundice of some weeks' standing, now under my care in the Manchester Royal Infirmary, in which the administration of olive oil, massage, and other treatment have failed to remove the obstruction, both patient and medical man gave independent witness that 1 gr. of blue pill taken three times a day increased the colour of skin and urine, whilst 1-grain doses of calomel caused decided improvement in the digestion and complexion and lessened the urinary excretion of bile, in spite of the continuance of the block in the main duct. Next to calomel, but as its aide-de-camp rather than its substitute, I do not hesitate to place Epsom salts, and in acute cases I am accustomed to follow up the calomel after five or six hours with 2 to 4 drachm doses till free purgation occurs. In chronic high tension an aperient dose of the mistura alba on rising each morning gives very definite relief. I use it extensively in out-patient practice and find, as Dr. Whitla observes, that it can be continued with advantage for long periods. Our mercurial ancestors, with their nightly blue pill and morning black draught, and their by no means delicate attentions to the *primæ viæ*, were perhaps nearer the mark than some of the more scientific moderns. I am told that my friend, the clergyman, was a younger and a better man whenever he had time and grace to attend to his bowels. When calomel is contra-indicated, and especially if dropsy be present, I often employ the compound jalap powder in drachm doses. Some fortify it with elaterium: my experience of the latter drug has not been encouraging. On two occasions the fault may have been in the quality of the drug supplied, in other cases it has been rejected or failed to act. An extra drachm or two of bitartrate of potash may be added, as recommended by Sir William Roberts, with excellent result.

There are, however, cases in which the convulsions are so severe and the whole condition so critical that some method of treatment more rapid than purgation is urgently demanded. If the blood tension be high I believe that both theory and practice uphold blood-letting as a reasonable and efficient remedy. It is true that physiology teaches us that moderate venesection does not lower the arterial blood-pressure and arguments have been based on this statement deriding its utility in disease. But surely a deviation from the normal is a very different thing from a return to the normal. The aim of the automatic regulating mechanism of the body is to secure normality. It may raise the blood-pressure with a view to increased excretion, but it will gladly allow a return to the normal if practicable. I advocate bleeding as a temporary device to tide over a crisis; that it accomplishes its end is undoubted. It must in most cases be backed up by measures more definitely depurative in character, dietetic and excretory. Some obstetric writers, like Dr. Galabin, absolutely set their faces against it. A friend of mine, surgeon to a large hospital, who has had a wide experience in such cases, told me that the only patient he lost in puerperal convulsions was the only one he did not bleed. Its utility in uræmia is maintained by such authorities as Sir William Roberts, Sir William Broadbent, and Dr. Osler. It may be employed with advantage in all cases in which calomel is admissible. Where the patient is already very anæmic and the kidneys are far advanced in organic disease both remedies are worse than useless and the prognosis is not markedly affected by any treatment. In the clergyman first referred to the congested face and full habit of body distinctly warranted the use of the lancet, but the absence of convulsions allowed time for the action of still better remedies. In dealing with severe puerperal eclampsia chloroform by the lungs and chloral and bromide *per rectum* are of unquestionable value. Nevertheless, though they mitigate the convulsions, like morphia they mask the coma, and I am bound to confess that when the pulse tension is high and the patient is plethoric I incline to the older method of treatment. Of the reported value of morphia in uræmia proper I have had no experience and should prefer to commence the trial of it on my enemies rather than my friends. Still, it strikes me as peculiar that the two drugs, mercury and opium, against the use of which in Bright's disease we were formerly warned, should be now both to the front in the treatment of uræmia. This does not prove that the former fears were groundless, but rather supports my present position—namely, that the more pronounced symptoms of uræmia, coma and convulsions, are often associated with comparative renal integrity.

In dealing with the results of chronic high tension I have found the nitrites very useful, but so far have not tried them in actual convulsions. An aching head or a heart struggling irregularly and painfully against an over-full arterial system will at once gratefully acknowledge the receipt of a dose of nitrite of ethyl, as suggested by Dr. Leech, or more slowly respond to tabellæ of nitro-glycerine. The latter preparation, because of its stability and ease of administration, I frequently employ in chronic high tension. It

gave great relief in the second case and may be used to diminish the intense headache which often accompanies the development of albuminuric retinitis. The sphygmograph readily reveals the action of the drug and may be employed to indicate the amount and frequency of the dose required to mitigate the tension. I say "mitigate" advisedly, for to relieve the symptoms it is not necessary, nor, indeed, is it an easy matter, to establish a normal tension. A tabella every six or eight hours is usually sufficient to accomplish the desired end. In one case of cardiac asthma with very irregular high-tension pulse the relief given by the nitrites was so great that the patient was immediately transferred from his bed to the local races, and the latter end of that man was worse than the first. As his medical attendant observed, the treatment both cured and killed him. Sometimes the nitrites produce definite diuresis, but even this should not lead us to set aside other eliminatory measures. When the kidneys fail the skin presents a large and active secretory area second only in importance to the mucous membrane and glands of the alimentary tract. The fact that in Bright's disease urea is excreted by the skin is a definite indication to the therapeutist. Of every-day drugs the sweet spirit of nitre and the acetate of ammonia are the most popular and valuable diaphoretics, but in uræmia we are compelled to adopt more active measures, such as the external application of heat, wet or dry, and the hypodermic injection of pilocarpine. The hot pack is one of our most valuable remedies and available in almost all cases. It is, however, to be specially selected when calomel and venesection are out of the question, when the system generally, and the connective tissues in particular, are drowned in ureated liquid and when the brain disturbance is more dependent on direct intoxication than irregularities of arterial pressure; in other words, in the dropsical uræmias of blocked or bankrupt kidneys.

The employment of pilocarpine hypodermically is not without its dangers. Nevertheless, if other remedies fail, it may be tried, provided the patient possesses full power of deglutition and the thoracic organs are in good condition. Its action should be assisted by the use of hot blankets, hot bottles, and warm drinks. Usually the response of the skin is rapid, a few minutes sufficing to start the perspiration, but the response of the system is somewhat more uncertain in time and degree. The effect produced, however, in some cases, as in the second already referred to, is very striking. Personally I avoid the use of the drug if possible, but confess that I have not tried the method of inunction recommended in milder cases by some writers with the object of reducing the risk of cardiac collapse and pulmonary œdema to a minimum. As pilocarpine is recommended in some forms of insanity it may be interesting to add that my friend Dr. Wansbrough Jones after the hypodermic injection of ½ gr. for ocular disease witnessed the immediate development of acute melancholia with attempted suicide, and the repetition of the dose some time later at the recommendation of the oculist led to a similar disturbance followed by several months' detention in an asylum. As there was no family history to suggest such a complication the drug was naturally suspected. At any rate the dangers of pilocarpine are sufficiently real to render its use a matter for deliberation. Many other interesting points in the treatment of uræmia press for discussion but time forbids. My object is accomplished if I have left on your minds the impression that so-called uræmic convulsions and coma have not necessarily the serious prognosis usually accorded them; that they may occur apart from evident organic disease; that even in Bright's disease they may prove to be mere accidents by the way; and, lastly, that the value of treatment is often greatest in old age, when the physician is in danger of standing by to watch the curtain fall before the drama has really reached the *finale*.

Manchester.

ON Wednesday evening, May 25th, a conversazione of the St. Andrews Graduates' Association was held at 11, Chandos-street, Cavendish-square. The company was received by the President, Dr. William F. Cleveland, and Miss Cleveland, assisted by the Vice-president, Sir Charles Gage Brown, and others. There was a large gathering of members and their friends, and an excellent selection of vocal and instrumental music was given under the direction of Dr. Cooper Key, of Wilton-place, a member of the council of the association.

MALARIAL FEVER: SOME SUGGESTIONS IN ITS PATHOLOGY AND TREATMENT.

BY WILLIAM FORBES-LESLIE, M.B., C.M. ABERD.

DURING the last few months malaria has appeared as a plague at Batum and in other districts of Asiatic Russia, causing a dreadful mortality, and the losses of the Spanish army in Cuba from the same cause, which I have reason to believe may be placed at nearly 100,000 men, with the death of Sir William Maxwell and others, make this, so it seems to me, an opportune moment for its discussion. My experience of the disease, extending as it does over a period of nearly twenty years, may, I hope, give me a certain authority for the statements I am about to make and lend weight to the observations which have led me to conceive a new pathology and treatment for it. Malaria for centuries has been recognised as the fever which infected marshy and tropical districts. It has during this long period received many names according to the type in which it manifested itself. There are certain parts of the world where it is more common than in others and where it is most deadly; such a part is the west coast of Africa, East Africa, and Madagascar, and it is the malarias of these countries, especially of the latter two, which I wish to discuss. Malaria is endemic, that is, it is confined to certain districts, and has no power to spread beyond its natural zone of production. Some observers are inclined to grant it an epidemic power, and this I believe it has in certain of its independent forms, such as influenza, malarial cholera, yellow fever, and dengue in all forms arising from and particularised from the parent disease. It has the tendency to widely extend itself beyond its seat of origin by winds, rivers, and sea-currents, to be deflected by forests, perpendicular cliffs, and to be impelled obliquely along slopes from the earth to the upper air-currents. It has a great attraction for the earth, which prevents it rising perpendicularly as do the more volatile matters of evaporation. I have noticed that according to its methods of transmission so it differs in the symptoms it produces. Thus if drunk in water or taken in food it gives rise to algid forms. If inhaled in the district itself it gives rise to a continued type frequently terminating in hyperpyrexia, but if inhaled at sea to an irregular type, characterised by intermittent fever, ague, or enteritis. I cannot see that Dr. Manson has proved that the mosquito is the intermediary between the malarial germ in the soil and that found in the human blood. The poison itself is said to be an organism, and this can hardly be doubted, but its form and method of development are not yet understood. Italian observers lay claim to its discovery. Their experiments have been made on Roman fever. It is not singular, therefore, if other observers contest this organism and lay claim to have discovered another which they say is always found in the blood in malaria. The difference in the fever of the Roman marshes from the Chinese and Indian fevers is most marked and my experience in Africa alone has taught me that the fever of no district resembles another, but they differ in some instances as widely as typhoid fever from cholera. Indeed, one could make a fever map of the African continent as uniform in its areas as the counties of England appear on a school atlas. Observers have tabulated such a number of bizarre forms of the organism in the blood that one gets confused and doubtful as to their identity and rather inclines to the belief that they are abnormal elements of the blood changed by some chemical action of the poison than individual organisms. My opinion is that the true germ of malaria has not yet been discovered and will not be till we can obtain a higher power of the microscope. As every district has a fever differing clinically, so must every fever be produced by a different and modified organism. How can we say definitely, then, Here is the organism of malaria? Rather say, Here are a score of organisms which produce malaria. We are only on the threshold of our knowledge of its life-history. Another fact I have observed is its power to produce other disenses. In this it somewhat resembles syphilis; but I cannot help thinking there may be some relationship between the two. In all malarial districts we find syphilis in its worst form, and in Madagascar it is so

common that but one adult native out of ten has not had it or is not suffering from it. Then we know that syphilis came from the east. The poison of malaria is an elastic poison. It is not only changed by difference of district and atmosphere, but by constitutional idiosyncrasies. We must read a malarial origin in pneumonia, typhoid fever, cholera, dysentery, enteritis, yellow fever, malignant endocarditis, multiple neuritis, locomotor ataxy, myelitis, meningitis, lunacy, hepatic troubles, kidney disease, blood diseases, skin diseases, and a host of others, not forgetting the bleeding diathesis. We must be prepared to recognise and treat these, not by the ordinary routine, but by that which applies to malaria, the initial disease and origin of them. It is wonderful to think that a poison can be so mobile as to be capable of change to such an extent. It naturally leads one to a belief that disease can only be impelled along certain planes and that under certain stimulation the tissues react in a certain manner. Another interesting fact in African fevers is that the sequelæ are far less in extent and severity in the algid than in the low forms. Thus we get serious impairment of motor or sensory paths, such as multiple neuritis, locomotor ataxy, migrating neuritis, sclerosis of the cord, paraplegia, hemiplegia, meningitis, meningeal and cerebral hæmorrhage, epilepsy, and diseases of the heart, liver, spleen, and kidneys. There is a great similarity between forms of malaria and influenza. It is natural, as it were, for one to telescope into the other. An attack of influenza will terminate in malaria or the reverse. And I have often noticed that malaria may infect with influenza, so that in this way malaria may originate an epidemic energy. It is quite in line with present opinion that influenza is a hybrid of malaria, for it is conceivable when we consider the mobility of the poison, its proneness to change with a change in its environment, and the fact that as disease is now undoubtedly proved to be the product of organic life that this life should be dominated by the law subserving life in the other departments of nature, and that the law of ascent is as applicable to the organisms of disease as to the organism of man.

We have now arrived at a stage when it is possible to determine the laboratory of the poison. It is necessary in every specific disease that it should have a nidus suitable to its development. Most observers in malaria have placed this in the blood. They say that once having gained entrance to the blood-stream it finds the necessary material for development and sets up a train of symptoms which are the clinical parallel of that development. Klebs was the first to demonstrate this theory by the discovery in the blood of an organism which he believed to be that of malaria. But it is obvious that there must be many organisms in the blood which from our imperfect microscopical powers have escaped notice; and also with a poison so powerful as malaria there must be a corresponding change in the elements of the blood with the production of bizarre forms, the difference between which and the latter is so slight in some cases, if any, as to render a decision difficult if not impossible.

It has been a matter of considerable dispute in what manner the poison obtains entrance into the system. Laveran and older authorities held that it did so through the drinking water, others again believe that it is inhaled, and lately Dr. Manson has come forward with a theory that it enters the blood directly through the agency of mosquitoes. I believe it is possible for it to enter in all these ways. But its introduction by water through the *primæ viæ* is undoubtedly the most frequent method and the most fatal. In almost all the severe cases of algid malarias I have treated the poison has been, as far as I could ascertain, introduced in this manner. So long as the water is boiled, the fruit fresh, and the other natural conditions of health fulfilled, there will be no algid malarias. Dr. Manson's observations have been principally taken from Chinese and Indian malarias. He hypothecates a parasitic cycle such as one finds in certain other diseases. He then goes on to prove this hypothesis by demonstrating similar organisms in the mosquito and malarial blood. The mosquito may in many cases become an accidental medium, but that it is a necessary intermediary is not borne out by facts. It is highly probable that mosquitoes absorb the malarial germ during their aquatic life and that it is possible to introduce such into the human blood, but whether the organism so introduced can set up the disease in healthy blood is not proved. It is not certain that infected blood from one person can produce the disease in another. If there is, as Dr. Manson believes, a parasitic cycle, such introduction must necessarily break that cycle, because it is not only necessary for the organism to change as the development proceeds, but a change must take place in the blood to fulfil a further development in the organism. Further, to look at it practically, how can Dr. Manson explain the reason why persons are attacked at sea by fever who have never been bitten by mosquitoes and who have never been before to a tropical country? I have seen hundreds of such cases. How is it that all the passengers on that side of the vessel nearest the coast have been seized by fever and the remainder on the other side escape. Surely it is not possible to believe that only these were bitten by mosquitoes and the rest were not. Is it not more conceivable and in line with its diffusion to believe that trade winds blowing off the coast carried the poison against that side of the vessel and that it was inhaled by the passengers whose cabin windows were open, but following a law of its diffusion which prevents its rising perpendicularly, was repelled by the side of the ship and obliged to ascend obliquely over it? We can divide most diseases into those arising from organisms in the blood and those arising from the introduction into the blood of the developmental products of organisms outside the blood. Under which class does malaria enter? It is generally believed that it is under the first that we must place it. I entered the field of practical observation equipped with this theory, but my experience after a time led me to modify my belief and I have now altogether changed it. I cannot bring myself to consider malaria other than the result of the products of the developmental energy of the organism outside the blood-stream, and some of the facts which have led me to this belief are that preceding the fever there is invariably a stage of hepatic congestion and signs of bile in the blood; the proneness of the disease to attack the *primæ viæ*, as evidenced by gastric derangement, enteritis, dysentery, and typhoid fever; the peculiar liability of the liver to acute inflammation with abscess as an extension from the *primæ viæ*; the induction of the algid malarias through the *primæ viæ*; the success of a treatment which aims at sweeping out the intestinal tract and disinfecting it; chills and rigors preceding the rise of temperature, with alternating falls and sweating; and the periodic type of the disease with alternations of health and disease. We know that constipation and other bowel derangements will cause stagnation of bile with increased absorption into the blood and that in this condition the constitution is more liable to disease than at any other time. We know also that by an energetic action by purgatives we can cleanse the *primæ viæ*, promote the natural passage of bile, and filter that already in the blood partly through the intestinal walls and by the kidneys. Now we know of no organism which fulfils part of its life history in the human blood which gives rise to such symptoms as are invariably found as a part of this disease except perhaps dengue—but dengue is only malaria under another name—and relapsing fever, which bears a close relationship to it. Idiopathic cases of pyæmia are so like malaria that it is often impossible to distinguish them. But this only bears out the fact that malaria, like pyæmia, is an extraneous disease. If we grant the extraneous life of the parasite then where is its place of development? Like pyæmia it must have a laboratory. I have no doubt that the laboratory is in the intestines, and that from here the poison dispenses its products either as spores, such as those bodies in the form of spheres, crescents, &c., which have already been discovered in malarial blood, or intercellular elements, or as a ferment to the blood-stream just as diphtheria finds a suitable nidus in the tonsil and distributes its poison from thence. It is also certain that the liver has an influence upon its development. Derangement of the biliary functions is always present before an attack. But such a condition can be observed before all diseases of the intestinal tract, showing the intimate relation between the liver and the *primæ viæ* and the tendency to inflammation spreading upwards to the liver. It is interesting to observe that Lauder Brunton attributes some importance to the liver in connexion with the arrest of certain substances absorbed from the alimentary tract whereby they are either destroyed, stored up, or it may be prevented from entering the general circulation in too large amount and that ptomaines may be arrested in this way. To understand the functions of the liver we must remember its unique relation to the vascular

and digestive systems, whereby many of the products of gastric and intestinal digestion have to traverse it before reaching the blood. The process of intestinal digestion is largely due to organisms and it is possible that many of these reach the liver with the material they have acted upon. But there are also organisms of disease which as accidental guests in the intestines also reach the liver. If the liver had no function of this sort the blood must be invaded by hordes of organisms or their products. It is necessary that a filter should exist between the alimentary canal and the circulation and it is natural to look for it in the liver. If this be true, infectious diseases must be preceded by hepatic derangement. Is this the case? It is invariably the case that disturbance of the hepatic functions ushers in infectious or endemic diseases. It is generally believed that at such times the blood is less powerfully phagocytic, but it seems rather that the destructive function of the liver towards organisms and ptomaines is lost. It is difficult to understand how ptomaines are destroyed in the liver. H. Rogers, as quoted by Landois and Stirling, says that it only possesses this property so long as it retains glycogen. Animal starch or glycogen is a true carbohydrate. It is stored up in the liver cells as amorphous crystals; its mother substance is the carbohydrates of the food; it is increased by large quantities of starchy matters, milk, fruit, and cane sugar; it is diminished enormously by a purely albuminous or fatty diet, by forced muscular movements or fatigue, exposure to cold, by hunger or by anything which disorders the biliary functions.

Now let us look at the conditions which induce malarial fever. They are identical with those which diminish glycogen—e.g., purely albuminous or fatty diet, fatigue, exposure to cold, hunger, or anything which tends to the formation of acid, a derangement of the biliary functions, while on the other hand those whose diet consists largely of carbohydrates are usually the persons who escape fever. Let us turn for a moment to the subject of glycosuria. This is a condition characterised by the presence of grape sugar in the urine, which Dr. Pavy holds is due to the liver being deficient in glycogen from a fault in its glycogenic functions. If this be so, then a person suffering from diabetes is unduly susceptible to malaria, which is the case. The exciting causes of glycosuria are, broadly speaking, the exciting causes of malaria, and the fatal effects of opium in malaria may have something to do with its action on the hepatic vaso-motor nerves, whereby it diminishes the formation of glycogen. These facts, I think, go far towards proving that the liver has a peculiar function with regard to ptomaines, retaining, destroying, or utilising them in its metabolism, and that this power depends upon the amount of glycogen in the liver. The latency of malaria may depend upon the retention of the ptomaines in the liver till such time as functional derangement permits their access to the circulation. In every disease with the absorption of poisons there comes a time when the phagocytic action of the blood is neutralised, and even, though the absorption is stopped, the system fails to recover itself. But before this point is reached malaria will exhaust itself by the natural channels. The fact that irritation of the urinary tract is a common feature in fever goes far to prove this. That the poison remains in the blood is highly improbable. The keenest observers have failed to discover it therein. But directly there is an imprudence in the diet whereby the glycogen is diminished then the fever manifests itself. The effect of chills inducing an attack strengthens the hypothesis, for we know that in hot climates the glycogenic functions are profoundly affected by changes of temperature. If we have come to this conception of the pathology of malaria by observing its clinical features, we shall be further strengthened in it by the favourable effect of a treatment based upon this conception. Heretofore physicians have been satisfied in trying to destroy the organism in the blood, but it is difficult to reach the blood with drugs; they have first to pass through the various chemical processes in the laboratory of the body which have power almost invariably to split them into their radicals. The present treatment of malaria may be conveniently divided into the specific and non-specific. The former is held by the mass of the profession, the latter by only a few. The doctrine of specifics is present in the traditions of medicine from the earliest times and it is natural to believe that in the great economy of nature there is a remedy for every disease. Consequently when quinine was discovered to have a favourable effect on malaria it was at once conceived to have a specific action. That it has a favourable effect is beyond doubt, but a specific action would intimate that it cures the disease—which it certainly does not. I have come to this conclusion from a study of both the Indian and African fevers. The method of giving quinine in large and frequent doses is sometimes a source of danger; it may in strong constitutions cut short an attack of ague, but in the deadlier forms of malaria it is most pernicious. I have seen better results attend the administration of simple remedies aiming at alleviating the symptoms. The great Dr. Livingstone came nearer the true treatment of malaria than any other observer. He discovered that a combination of jalap and calomel had the effect of cutting short or preventing an attack. He had it made up into pills which his followers called "Livingstone rousers," duly appreciating their drastic purgation. But Livingstone was unable to explain their action. After several years' study on African fevers I began to suspect that it was not in the blood we must look for the chief source of the poison but in the intestine. I was led to this belief partly by the facts I have already stated in considering its pathology and by the inefficacy of quinine, partly by observing the benefit arising from "Livingstone rousers" and by my experiments on gastric malarias.

Experimenting with the drugs in "Livingstone rousers" I found that jalap had no effect on fever; with calomel I had a different result. I had already administered it as an antiseptic in malarial enteritis with marked success. At the time I did not base it on the theory I now hold, but for some time I had been convinced that mercurial compounds exerted a beneficial action on malaria. Calomel by combining both the properties of a stimulant of the intestinal glands and an antiseptic of the intestinal tract appealed to me as being peculiarly adapted to the objects of its treatment. It was therefore with considerable interest that I read in THE LANCET[1] Surgeon-Lieutenant-Colonel Duke's article on the Treatment of Asiatic Cholera by Calomel. There is a form of malaria which closely resembles Asiatic cholera; indeed, it appears to me that there is a relationship between them. I found that calomel exerted the same beneficial action here as Surgeon-Lieutenant-Colonel Duke ascribed to it in Asiatic cholera. In that form of malaria where uncontrollable vomiting is the prominent symptom—"the white vomit"—its action was instantaneous. In the comatose form its effect was equally rapid, in the continued fevers it cut short the attack. In hyperpyrexia it immediately reduced the temperature. In agues it had the effect of at first confining the stages and then preventing them. In malarial pneumonia it had an extraordinary effect in controlling the spread of the inflammatory process in the lung and also reduced the temperature. Of course each case requires modification in its treatment, but usually I gave 3 gr. at first in cases in which there was constipation and 5 gr. in those in which laxity of the bowels was a prominent symptom. Twenty-four hours after I administered a smaller dose and if there was no severe purging in thirty-six hours a still smaller one. I always use calomel in powder as I find its action is more certain than in pills or tabloids. On no account is opium to be used. Dr. Webster Jones in an article in THE LANCET some years ago on the Value of Calomel in Asiatic Cholera pointed out the fatality following the administration of opium and I am convinced that the same is the case in malaria. Large saline draughts should not be given with calomel to hasten its action, but soda- and potash-waters in small quantities to quench the thirst and alkalise the plasma are necessary. In cases where paralysis of muscles is present or failure of heart threatened hot soup with large doses of pepper will be found of great advantage. I cannot recommend pepper too highly as a stimulant in malaria. I now turned my attention to those drugs which stimulate biliary secretion, such as podophyllin, rhubarb, colchicum, and euonymin. I was not long in discovering that they were injurious, showing that increased secretion of bile without proportional oxidation reacts unfavourably. This went far to prove my theory of intestinal absorption. But I went still further, for I have found fever to be induced by a full diet of meat and fats, which we know increases in a marked degree the secretion of bile and diminishes glycogen. In both ordinary attacks and those induced by diet the administration of calomel has the same beneficial effect. But, as I have

[1] THE LANCET, Feb 6th, 1893, p. 244.

said, it is not only necessary to destroy the laboratory of the poison in the intestine: we must also destroy it in the blood. It is not enough to stand by and wait till the poison is exhausted through the natural channels of excretion. It clings to the blood with a strange obstinacy and seemingly has the power after passing from the blood into the intestine to develop and reconstitute its laboratory. We might by the administration of calomel again cleanse the *primæ viæ*, but we do not prevent a fresh infection. No, we must attack it in the blood. In a *method* of treatment we find the true adaptation of the term specific. It is not enough to use such drugs as iron and carbonate of potash as we do in the anæmia of chlorosis. We have here no vital poison like malaria. Dr. Eustace Smith, in his work on the Diseases of Children, says that in malaria where there is much acute enlargement of the liver and spleen quinine seems to be useless and advocates a treatment with grey powder. I find that quinine has a more favourable action on the poison after the administration of calomel than without it, because probably calomel obviates the biliary derangements which are a feature of quinine. Here we find, I believe, the true and proper application of quinine. I experimented still further on several drugs said to have antiseptic properties on the blood, such as salicylic acid, arsenic, potassium iodide, and carbolic acid. I got the best results from carbolic acid, but better results still by a combination of carbolic acid and quinine. I gave it in the form of a solution in the proportion of 1 gr. of carbolic acid to 3 gr. of quinine in sulphuric acid and water to 1 oz. every four hours till the temperature fell, then less frequently for several days, till the symptoms had disappeared. Almost every case reacted favourably to this treatment. In my hands it has been practically specific. Arsenic is largely used in the French army, partly, I believe, from economical reasons, but the mortality among their troops in Madagascar is a sad proof of its inefficacy. Arsenic diminishes the glycogen of the liver and is thus another plank in favour of the glycogenic theory. In the after treatment the principal object is to nourish the patient, at the same time keeping close watch on the liver, regulating any derangement at once, keeping the paths of excretion open, and giving a diet largely consisting of carbohydrates. Alcohol must be sparingly indulged in; excess is fatal. Another point which is not generally known is that a sea voyage is unfavourable unless the patient is fully convalescent. H.R.H. Prince Henry of Battenberg died at sea; so did Sir William Maxwell. It is a common thing for men to come on board at Beira incompletely convalescent and die before they reach Natal. In many cases men completely convalescent succumb to the terrible black-water fever after being a few hours at sea. What the cause is it is difficult to say. Possibly the motion of the vessel acting through the nerve centres on the vaso-motor nerves of the liver may disturb its glycogenic functions, or a chill may be the cause or it may be in the atmosphere itself. Whatever it may be, however, it is a law of malaria which it is well to bear in mind when advising a patient to take the voyage to Europe. It is too frequently the voyage from which none return.

Banchory, Kincardineshire, N.B.

EXTRAORDINARY CASE OF HORSE-BITE; THE EXTERNAL EAR COMPLETELY BITTEN OFF AND SUCCESSFULLY REPLACED.

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ON March 2nd, 1898, at about 4.30 P.M., when present at an auction, I was asked to attend to a boy, aged fourteen years, whose ear had been bitten off by a vicious horse. He presented a hideous appearance, the greater portion of the pinna, together with a semi-circular flap of an inch radius from behind the ear, having been bitten off, leaving only the tragus with a quarter of an inch each of the helix and lobule. (See Fig. 1.) Although the case looked so hopeless (as regards disfigurement) I determined to make an attempt to save the ear, as the patient could be no worse off than he was then if the attempt failed. I asked for the ear and after about ten minutes' search it was brought to me, having been found near the horse in the stable yard. It was of a dirty drab colour and the posterior flap was curled up in a roll. I had no instruments or dressings with me, and it would have taken half an hour or more to procure them, which delay would have

FIG. 1.

The dotted line indicates the portion of the pinna and tissues behind the ear which were bitten off. A notch in the lobe indicates the spot where sloughing took place.

FIG. 2.

R. J——, aged fourteen years, as he now appears.

rendered the attempt to preserve the ear useless. I therefore procured some common needles and thread and after washing the ear in warm water I proceeded to sew it on by inserting a suture above and another below, followed by three behind and three before. The posterior flap had to be unrolled before I could stitch it and owing to the needles being straight there was great difficulty in placing the sutures in the concha and the fossa of the antihelix. I then placed a roll of cotton wool behind the ear to support it, and having wrapped it in cotton wool and covered it with a silk handkerchief sent the boy home. As soon after as possible I removed as much of the wool as I could without disturbing the wound, and after dusting the surface with iodoform wrapped the ear in cotton-wool and Gamgee tissue. On March 7th I removed the dressings, washed the ear with a warm solution of bichloride of mercury (1 in 1000), dusted the surface with iodoform, wrapped the ear in iodoform gauze, and packed it round and covered it with cotton wool. On the 10th I renewed the dressings and removed the sutures. On the 14th a small portion of the lobe sloughed away. On the 16th the patient looked rather anæmic and felt weak, so he was given a mixture containing sulphate of quinine and tincture of perchloride of iron. The same treatment was adopted throughout, the dressings being renewed every second or third day until April 7th, when they were allowed to remain on until the 12th, when the ear was completely healed and presented the appearance shown in Fig. 2. The patient's diet consisted of plain food, together with bovril, beef-tea, and eggs. He is a healthy, intelligent lad, who has survived several accidents, his body being covered with scars from burns. On one occasion it was necessary to transplant six skin-grafts from the calf of his leg to his thigh to replace skin which had been destroyed by burns.

This case, I consider, shows what valuable results may be brought about by antiseptic treatment and making prompt use of whatever comes handy when the proper instruments, &c., are not available.

Chester-le-Street.

A CASE IN WHICH A STONE WAS DETECTED IN THE KIDNEY BY MEANS OF THE X RAYS AFTER SUBSIDENCE OF ALL SYMPTOMS AND SUCCESSFULLY REMOVED.

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THE report of the case of Dr. Taylor and Mr. Fripp at a recent meeting of the Clinical Society of London[1] and the interesting discussion on the detection of stones in the kidney by the x rays which followed have induced me to publish the following case.

The patient, a boy, was admitted into the Bristol General Hospital under my care with well-marked symptoms of renal calculus, but these completely subsided with rest in bed and the boy could run about and jump downstairs without any pain and there was no tenderness in the loin on firm pressure or sharp percussion, so that he would certainly have been sent home without operation had the skiagram failed to detect the calculus, as I should have concluded that the stone might have passed down the ureter into his bladder or have passed *per urethram* without recognition. It is interesting to note that this complete subsidence of symptoms had occurred on a previous occasion, when he had been discharged from hospital apparently "cured." Probably when symptoms came on the calculus got out of its pouch in a calyx and moved about in the pelvis of the kidney and the subsidence of these symptoms was due to its falling back into this pouch again. This complete subsidence of symptoms has been observed in other cases when a stone has remained in the kidney, but without the detection of a calculus by x rays a surgeon would hardly like to do nephrotomy after the symptoms had passed off. That the stone in my case was of the oxalate variety made its detection more easy. The skiagram showing it was exhibited (together with the stone) by me at a meeting of the Bristol Medico-Chirurgical Society last autumn. It was taken by Mr. L. Tyack, lecturer on physics at University College, Bristol.

This patient, aged twelve years, came under my care at the General Hospital on June 28th, 1897, with a history of attacks of severe pain in the left loin. During these attacks he passed urine very frequently. The pain did not shoot into the groin or testes. From the description given by his mother there is very little doubt that he had hæmaturia after an attack. Strong percussion of the left loin seemed to cause some pain, but there was no tenderness on deep and firm pressure on the kidney or in the course of the ureter nor could any stone be felt in the lower end of the ureter *per rectum*. His bladder had been sounded by the assistant house surgeon before I saw him with negative result. In the previous September he had been a medical in-patient with attacks of lumbar pain. This was the first time he had suffered from the pain and it had not recurred in the interval. He was admitted on June 30th with a severe attack of pain which lasted twenty-four hours and was accompanied by vomiting but there was no hæmaturia. The pain was felt through the left loin. These attacks recurred for three days and required morphia injections. The muscles over the kidney became rigid and there was much tenderness over the whole of that side of the abdomen and in the loin behind. The urine was carefully watched but no hæmaturia was detected. The note on July 5th says that he had been free from pain for forty-eight hours, but that there was tenderness on pressure in the region of the kidney behind. A skiagram taken on the 8th showed a shadow lying over the twelfth rib, 1¼ in. from the spine. After this skiagram was taken he could run, and jump down several steps, without pain and there was no tenderness on sharp percussion of the loin and firm pressure there. He said the only pain he had was along the urethra after micturition and this had been present since the passage of the bladder sound before admission. However, another skiagram taken on the 14th showed the same shadow as the one taken on the 8th. I operated on July 23rd. Directly I passed my finger round to the anterior surface of the kidney I felt the stone covered by only a thin layer of renal tissue. It lay just where the skiagram seemed to indicate—in front of the last rib and therefore in the upper part of the kidney. After its extraction I could pass my finger into the dilated calyx in which it had been lying and then on into the pelvis of the kidney, so that I could recognise the apices of the pyramids; I thoroughly sounded the pelvis with a very small bladder sound, but failed to discover any other calculus. The boy made an uneventful recovery and when I saw him a few months ago he was still quite well. The stone was a typical oxalate calculus. It measured ¾ in. by ½ in. and on it was a process about ⅓ in. long, covered with rare and beautiful crystalline oxalates.

Clifton, Bristol.

[1] THE LANCET, April 30th, 1898

THE ADMINISTRATION OF CHLOROFORM, WITH SPECIAL REFERENCE TO AN ADMIXTURE OF ETHER.

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IN the controversy which has been carried on concerning the methods and the dangers of chloroformisation it seems a pity that the attention of one set of writers should have been so exclusively directed to the influence of the drug on respiration and of the others, equally exclusively, to its effect on the circulation, the fact being that these functions are so mutually interdependent that serious and continued interference with the one cannot fail to quickly affect the other; and when, as in $CHCl_3$ narcosis, such interference is due to primary and simultaneous inhibitive action on the nerve centres of both it would seem that neither of these functions can be neglected with safety to the patient. In other words, to watch the pulse and the pulse alone is to neglect the breathing which may and usually does give warning of an impending catastrophe the approach of which may not have been appreciable in

the pulse and *vice versâ*. Therefore the well-trained and experienced chloroformist will from the first keep watch upon both the pulse and the respiration and he will also note the colour of the skin as influenced by the state of the circulation. This last is a point the importance of which can hardly be over-estimated, and for these reasons: (1) pallor of the skin due to the physiological action of $CHCl_3$ means emptying of the capillaries, not only of the skin, but probably also of the whole organism; (2) empty capillaries argue plethora of the larger blood-vessels, especially the veins, and consequent tendency to stasis, which reaches its final depth in "chloroform syncope"; and (3) in this condition (of approaching stasis) the brain and bulb are not merely deprived of sufficient blood-supply owing to inadequate heart action, but the blood which reaches them is itself more or less laden with $CHCl_3$ vapour and is therefore emphasising the inhibitory effect of the drug upon, among others, the centres of the respiration and vaso-motor system. So that at the moment when the heart and the respiratory muscles are in greatest need of normal stimulation only enfeebled currents reach them from a chloroformised brain through chloroformised nerves. Moreover, the muscular tissue itself is more or less immobilised by the direct action of the drug.

Here precisely it is important for the anæsthetist to bear in mind that the physiological phenomena produced by an overdose of $CHCl_3$ are in some important respects paralleled by those of fright[1] (and the patient is usually more or less alarmed and anxious)—e.g., there is (*a*) the proverbial skin pallor of fright; (*b*) syncope; (*c*) cessation of respiration; (*d*) absence of wrist pulse; and (*e*) death. Nor must it be thought that "pushing the chloroform" helps to abolish immediately these phenomena or to lessen their importance. On the contrary, during the first few minutes of chloroformisation the devitalising conditions arising from fright not only continue but become intensified, especially if the drug be "pushed" too rapidly. Herein, as I believe, lies the key to the occurrence of sudden death at the commencement of $CHCl_3$ anæsthesia; and also the explanation of the fact that patients who have no fear of either drug or operation almost invariably take the former well. But if, on the one hand, paleness of the skin implying an empty condition of the capillaries is an adverse sign, then, on the other hand, the safety of the patient is greater when the capillary circulation is well maintained throughout by reason of any one or more of the following factors—viz., (*a*) vigour of the whole circulatory system, (*b*) careful administration of $CHCl_3$, (*c*) a warm atmosphere (which also diminishes, perhaps, the amount of vapour inhaled), and (*d*) the simultaneous administration of any drug (ether) which causes dilatation of the capillaries while stimulating the vaso-motor and respiratory centres as well as the myocardium. (Possibly the heat of the atmosphere was a not unimportant cause of the greater success of the Hyderabad experiments, presuming, i.e., that the experiments were made during the hotter part of the day.)

Bearing in mind the foregoing considerations the statement of Leonard Hill and Harold Barnard that "chloroform acts upon three parts of the economy—(1) the heart, (2) the respiration, and (3) the arterioles"—is seen to be incomplete for two reasons: (1) it is evident that chloroform acts probably on all parts of the economy and interferes profoundly with tissue metabolism generally—especially, perhaps, with both that of the blood itself and of the nervous system; and (2) upon the heart, respiration, and arterioles chloroform does act directly, it is true, but such direct action is negligible if compared with the indirect effect due to the inhibitory influence of the reagent upon the nerve centres supplying these parts. In saying this I must not be understood as making the least attempt to minimise the value of the lessons to be learned from the brilliantly successful experiments of these authors, especially perhaps their demonstration that "chloroform syncope" can be (and has been) produced by an overdose of that drug. Nevertheless, it is surely of the utmost importance in the treatment of this subject that words which do not clearly or not quite inclusively represent the views of the authors should not pass uncriticised or at the least unchallenged. Waller's experiments (which were undertaken with a view to ascertaining "the relative efficacy of various anæsthetics," and for this purpose alone) contribute, however, some very reliable, because extremely accurate and demonstrable, data concerning the behaviour of the tissues—represented by nerve—under the direct influence of $CHCl_3$. Of these it seems to me the most important, placed in the order of their value for practical purposes, are the following: (1) the slowness with which tissue (nerve) recovers from the immobilising effect of $CHCl_3$; (2) the greater strength of chloroform as compared with ether; and (3) the narrowness of the safety margin which lies between sufficient $CHCl_3$ anæsthesia and a lethal dose. Inferentially—although Waller does not specifically state this—there is the corollary that a narrow limit also lies between sufficient and insufficient $CHCl_3$ anæsthesia. Consequently it is manifest that $CHCl_3$, however pure—and to use this reagent for surgical purposes in any other than the purest condition would be inexcusable—needs at all times the utmost care in its administration even in the hands of the experienced anæsthetist. Also quite as much care, deliberation, and patience are required in its use for the most trifling as are demanded for the most serious operation.

Without entering further into details, which are necessarily excluded from this paper, enough has been said to emphasise the dangers and the difficulties of chloroformisation. It was only after much careful and anxious thought about these subjects that I at length resolved to use for the purposes of general anæsthesia a mixture of ether with $CHCl_3$ in which the ether should be in much smaller proportion than in the mixture generally employed—e.g., either A.C.E. or Bilroth's mixtures. In A.C.E. I had reached the conclusion that the alcohol served no other purpose than that of a diluent. On the other hand, the ether while present in far too large proportion to act as a stimulating counter-agent to the depressing influences of the $CHCl_3$ was when—as generally—used on an open mask too small in amount to make its anæsthetic effect available to an appreciable extent. Moreover, I found that the large percentage of ether in A.C.E. was calculated to blind the administrator to the cumulative deadening influence of the $CHCl_3$ on the tissues (especially of the nerve centres). I had also noticed that when A.C.E. had been used, however carefully, through a lengthy operation that the vomiting following the withdrawal of the anæsthetic was sometimes more severe and always more prolonged than where ether or $CHCl_3$ alone had been used. Bearing these facts in mind I employed (in the next four cases) instead of A.C.E. a mixture composed of four volumes of $CHCl_3$ with one of ether. The result was highly satisfactory in every instance. Nevertheless, it was evident that the proportion of ether was still too large as shown by the deeper breathing and the skin congestion. Accordingly I steadily diminished the percentage of ether in my subsequent cases until I arrived at the mixture which I am using with excellent results at the present time. This consists of one volume of ether mixed with sixteen volumes of $CHCl_3$. With this mixture I have had up to the present time invariably better results than I have ever previously had with $CHCl_3$ either alone or in the form of A.C.E.

It must be borne in mind throughout the anæsthesia that the presence of ether even in this small proportion causes not only deeper breathing than occurs with pure $CHCl_3$, but in many instances deeper than normal. Consequently, the intake of $CHCl_3$ vapour at each inspiration is (in such cases) larger than when pure chloroform is given. The following are, in my judgment, the chief advantages of producing surgical anæsthesia by using the 1 in 17 C.E. mixture: (1) the ether causes and maintains dilatation of the arterioles and capillaries, thus securing throughout a properly conducted anæsthesia (*a*) the needful blood-supply for the nerve centres including those of the heart and circulation and respiration, and (*b*) immunity from the central plethora produced by the immobilising effect of $CHCl_3$ on the vaso-motor centres; (2) deeper breathing throughout the entire period of anæsthesia however prolonged; (3) more powerful heart-contractions; (4) a wider zone of safety between full surgical anæsthesia and the "fourth stage"; (5) the rapid passing off of the narcosis on withdrawal of the anæsthetic; and (6) the slight sickness resulting from even a prolonged administration.

In giving this 1 in 17 mixture of ether and $CHCl_3$ I find it more advantageous to begin with a simple mask

[1] It must not be forgotten that in estimating the influence of the psychic centres upon any part or function full allowance must be made for the immeasurably greater results of such interference in the human than in other animals, nor that in this paper human organisms only are referred to in considering the action of $CHCl_3$.

designed by me, which permits at all times a free air-supply. Still, there is no doubt that in the great majority of cases the improved Junker remains the best apparatus for the administration of $CHCl_3$. As a precautionary measure I am in the habit of giving in certain cases a hypodermic injection of either of the following: (1) from 5 minims to 10 minims of a 10 per cent. solution of strychnine-sulphate (this stimulates the heart and respiratory centres and is, I think, necessary in all cases where the patient is frightened and distressed); or (2) from 2½ minims to 5 minims of 1 per cent. solution of atropine sulphate (this acts by paralysing the inhibitory fibres of the vagus and should be given in cases of weak dilated heart). Small doses of either of these drugs are useless owing to the antagonising effect of the $CHCl_3$. Whether drugs be given or not it would be well in all cases to secure, in the patient's interest, a warm room and sufficiently warm clothing.

Finally, I will state the following conclusions as the result of my experience. 1. In threatened death from $CHCl_3$ the first and, in my judgment, the most successful step is immediate inversion *in all cases*, the tongue being drawn forward at the same time. If this measure fail—and I have never known it to fail if it has been done in time—I believe that nothing else will succeed, not even artificial respiration, and for the following reasons: (*a*) when central stasis is approaching the feebly-beating heart is being rapidly overburdened with a surplus of blood which, leaving the capillaries depleted, has been pouring into the large veins; (*b*) this capillary depletion implies acute anæmia of, among others, the vagus centre and consequent cardiac inhibition; (*c*) if, in these circumstances, artificial respiration be done by (say) Silvester's method the inspiratory movement tends to drive still more blood into the already distended heart, thus limiting its already enfeebled power of contraction; and (*d*) the inspiratory movements aspirate the cerebral vessels and so further deplete the vaso-motor and respiratory centres while, *æquo pede*, they also help to deepen the cardiac dilatation and inaction. 2. Next to inversion in order of importance I should place the hypodermic injection of ether (30 minims) and 10 per cent. strychnine-sulphate solution (from 5 to 10 minims), which may be given during inversion. 3. Heat applied to the trunk and extremities. 4. When returning power of the heart is evident artificial respiration should be commenced at first, if necessary, in the inverted position for a few moments and afterwards in the horizontal position with the head below the level of the trunk.

Wimpole-street, W.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

A CASE OF TRUE SUBCLAVICULAR DISLOCATION OF THE HUMERUS.

BY T. WILSON PARRY, M.A., M.B., B.C. CANTAB.

MR. HOLMES, in his "Principles and Practice of Surgery," in contrasting subcoracoid with subclavicular displacement of the head of the humerus in dislocations of the shoulder-joint, states that "the true subclavicular dislocation, in which the whole head of the bone lies internal to the coracoid process, is very rare." The following case, therefore may prove of interest and be worthy of record.

A woman, thirty-four years of age, came to me on May 19th, 1898, with the request that I should as soon as possible reduce a dislocation of the right shoulder which she was suffering from. The history of the case was as follows. On March 2nd, 1898—that is, about eleven weeks previously—she dislocated the same shoulder by falling and striking her elbow as she fell. She kept the arm in a sling for over a week after the dislocation had been reduced and then allowed herself to bring it into ordinary use. She was away from home at the time when this occurred, so I did not attend her on that occasion. The present injury was brought about on the day mentioned above when she was making some beds. She was shaking a blanket when she suddenly felt the humerus spring out of its place. On examination I found the head of the bone to be completely internal to the coracoid process, immediately under the centre of the clavicle. There was just room enough for me to insert my index-finger between the inferior surface of the clavicle and the head of the humerus. The shaft of the humerus, I need hardly say, was directed some distance from the side. I made three or four attempts to reduce it by extension in the ordinary way without an anæsthetic, but the muscular resistance was too great for me to be successful. I accordingly put the patient under ether and was enabled when she was properly anæsthetised to put the bone in its right place in a moment. The woman, who is very intelligent, volunteered the remark that she knew at once that this second dislocation was worse than the former one, for she felt that the bone was more out of place this second time, and "what's more," she added, "it has given me a great deal more pain."

Youlgreave.

NOTE OF A CASE OF HÆMORRHAGE FROM THE EAR.

BY WALTER H. BROWN, F.R.C.S. IREL.,
HONORARY SURGEON TO THE LEEDS GENERAL INFIRMARY.

A CHILD, aged five years, a patient under the care of Mr. Eustace Carter, had been suffering from a follicular tonsillitis; this was apparently clearing up when, without any warning, hæmorrhage took place from the right ear, the amount of blood lost being very great. When I saw the child with Mr. Carter an hour later she was blanched, deeply collapsed, and the nightdress, pillow, and bedclothes were widely stained with blood. On examining the ear after washing out the clot I failed to detect the source of the bleeding; the examination of the throat gave no information. The meatus was then packed with iodoform gauze, a pad and bandage being put on; this was left in position for four days, during which time there was no sign of any bleeding and the child appeared to recover in a measure. On the packing being taken out a small quantity of pus escaped from the meatus; it had no smell. Four hours after the plug was removed another hæmorrhage took place, more copious than the first one and when I saw the child her condition appeared to be hopeless. The radial pulse could hardly be felt, the surface was cold, the mucous membranes were pale, and the child was restless and partially delirious. There was now present on the right side of the pharynx a swelling pushing the right tonsil over towards the middle line; this swelling did not pulsate. As it seemed most likely that the source of the bleeding was the internal carotid, and as it was quite clear that the child must die if another bleeding took place, I decided to tie the common carotid then and there. The child was put under ether and I ligatured the common carotid at the point of election. The subsequent progress does not call for special comment, the child made a good but somewhat tardy recovery, and is now quite well.

Hæmorrhage from the external ear is not a common occurrence—at any rate not in such formidable quantities as now related. Fortunately for the child we have had no opportunity of making a careful dissection of the parts involved to ascertain the exact cause of the bleeding. I venture to suggest that there had been some inflammatory change in the bone surrounding the internal carotid artery causing erosion of the walls of that vessel. I think now that it would have been better to have ligatured the vessel after the first bleeding rather than to have waited for a second attack and in any future case I shall adopt that plan.

Leeds.

ACUTE PHTHISIS IN A CHILD; RECOVERY.

BY F. G. A. ROGERS, M.R.C.S. ENG., L.R.C.P. EDIN.

THE following case presents several points which will probably be of interest to some readers of THE LANCET. The patient was a male child, four years of age, suffering from acute broncho-pneumonia. The mother had died from pulmonary phthisis and another child had died from tuberculous meningitis some two or three years before. The patient appeared to have recovered from the attack of

broncho-pneumonia and his temperature was normal; there were, however, numerous râles all over the lungs though not loud; the temperature again rose to 102° F. and then dropped, and so alternately rose and fell, the breathing being quickened, the face becoming flushed, and a troublesome cough coming on. There was evidently trouble at the right apex; bronchophony appeared and cough was almost croupous at times. Gradually the right side of the chest seemed to be contracting and falling in, the expansion of the right lung being imperceptible. From the history I judged there was tuberculosis rapidly setting in—in fact, the appearance was one of phthisis in a most acute stage. I told the friends that it was a hopeless case; however, as soon as it was evident to my mind that it was phthisis, I tried the following: dilute phosphoric acid, 40 minims; tincture of hamamelis, 40 minims; tincture of cinchona, 5 minims; syrup of lemon, ½ oz.; water, to 6 oz.; dose, ½ oz. every three hours. I persisted with this till the temperature again became normal and remained so and then ordered it every four hours. I ordered a teaspoonful of cod-liver oil in half a wineglassful of port wine morning and evening, beef tea, raw eggs, milk, &c. The child lost his cough; the right side is distinctly narrower than the other, and the wall over the apex is apparently flattened, but he plays about and is as well as he can be, and may we not hope that he may live as long as the average life? The child lives in the neighbourhood and may be seen. If this treatment is tried and found successful by others it will be a satisfaction to me.

Cardiff.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

GENERAL HOSPITAL, BIRMINGHAM.

TWO CASES OF ACUTE INTUSSUSCEPTION SUCCESSFULLY TREATED BY IMMEDIATE ABDOMINAL SECTION AND REDUCTION.

(Under the care of Mr. GEORGE HEATON.)

THE question of the treatment to be adopted in cases of intussusception is both interesting and important. It is important because the condition is decidedly frequent and Leichtenstein's statistics showed that in about 40 per cent. of all cases of intestinal obstruction the cause was intussusception. Moreover, in a large proportion of these cases the patient is very young and, according to Leichtenstein's figures, more than 22 per cent. were under one year old. At this tender age any abdominal lesion is of especial importance, as the mortality from intussusception shows. Till within the last few years the plan of inflation or injection was alone employed for the treatment of this condition, but the results were very unsatisfactory, and the trend of surgical opinion has been distinctly in the direction of early laparotomy, not preceded by any attempt at inflation or injection. In the first place injection is not harmless, for a fair number of cases have been reported in which rupture of the bowel has followed injection,[1] even though the injection has been most cautiously administered; and it is generally admitted that neither of these methods, injection or inflation, should be employed after forty-eight or even twenty-four hours from the commencement of the illness. For adhesions will probably have formed; and Marsh,[2] indeed, found firm adhesions fifteen hours after the onset of the symptoms. If, then, the condition has lasted twenty-four or forty-eight hours most surgeons are agreed that inflation, if used at all, should be employed for a very short time only and if unsuccessful laparotomy should immediately follow; but evidence is accumulating that a "primary" laparotomy (that is, one not preceded by inflation or injection) offers a still better chance of success. We have recorded several such cases in THE LANCET in the last two or three years and in February, 1895, we published a case operated on by E. W. Roughton in which recovery followed a primary laparotomy in a child aged only four months. A still earlier success occurred in an infant two months old who was operated on by Carpenter.[3] A valuable paper by F. H. Wiggin of New York appeared in THE LANCET last year[4] in which he forcibly advocated primary laparotomy, basing his opinion on carefully collected records of 103 cases. The two cases which Mr. Heaton has recorded below are valuable as showing the harmlessness of a laparotomy in this condition. It is not improbable that in a few years' time surgical opinion will be very adverse to any attempt at reduction by inflation or injection and that immediate laparotomy will be the rule rather than the exception in the treatment of intussusception.

CASE 1.—A boy, aged four years, was admitted into the General Hospital, Birmingham, on March 28th, 1898, with the history that at 9 A.M. that day he had been suddenly seized with violent abdominal pain. He became very collapsed and vomited almost continuously for an hour. He was then violently purged and passed a considerable quantity of blood *per anum*. This was repeated at 12 noon and again at 12 30 P.M. The vomiting continued up till admission into the hospital at 3.30 P.M., but the collapse had gradually passed off. His bowels had previously been regular, but he had always been subject to "bilious" attacks. He was a delicate boy and had been frequently laid up with bronchitis. On admission the temperature was 97° F., and the pulse was 112, small and regular. The symptoms of collapse had passed off, and he complained of but little abdominal pain across the umbilicus. He vomited some bilious fluid soon after admission. The abdomen was lax and there was but little tenderness. To the right of the umbilicus a freely moveable tumour could be easily felt. It was tender on pressure and could be felt to harden when it was pressed. The rectum contained a little blood and mucus. An anæsthetic was administered and laparotomy was performed seven and a half hours after the onset of the symptoms. The opening was made in the right linea semilunaris immediately over the tumour. The intussusception, which was 5 in. long, was brought outside the abdomen. It was reduced without difficulty except as regarded the last ½ in., the reduction of which required considerable care. The ileo-cæcal valve formed the apex of the intussuscepted bowel. The abdomen was then closed in the usual manner, the whole operation only lasting nineteen minutes. The patient's recovery was rapid and complete. For a few days after the operation he had a good deal of bronchitis, aggravated by his getting out of bed within a few hours of the operation. The bowels were opened naturally on the fourth day after the operation and he passed a hard fæcal mass which was covered with blood. The stitches were removed on the eighth day and he was discharged from the hospital early in May wearing a small abdominal belt to support the operation scar.

CASE 2.—A boy, aged three years, was admitted into the General Hospital, Birmingham, on March 29th (just twenty-four hours after admission of the patient in the previous case) suffering from abdominal pain and vomiting. At 1 P.M. on the day of admission, shortly after going to the closet without any action of the bowels, he was suddenly seized with violent pain in the right side of the abdomen. He vomited several times during the afternoon and had repeated attacks of abdominal colic. About an hour before admission he suddenly became profoundly collapsed and convulsed; he then again vomited and the collapse passed off. He had previously been in good health, though the action of the bowels had been somewhat irregular. On admission the pulse was 96 and the temperature was 100° F. At times the patient lay apparently quite comfortable and would allow deep palpation of the abdomen. But at frequent intervals he was seized with attacks of colic which produced a good deal of collapse. The abdominal walls were blistered and inflamed as the result of hot turpentine fomentations. In the intervals between the attacks of colic a small sausage-shaped mass could be distinctly felt to the right of and below the umbilicus; the mass was not tender and was freely moveable. The rectum was empty.

[1] Parkes: Transactions of the Clinical Society of London, 1892, p. 244.
[2] THE LANCET, Feb. 14th, 1891, p. 368.
[3] Philadelphia Medical Record, June 6th, 1896.
[4] THE LANCET, August 28th, 1897, p. 625.

The bowels were opened once after the beginning of the attack. The diagnosis of acute intussusception being fairly clear the patient was anæsthetised and laparotomy was performed seven hours after the commencement of the symptoms. A 3½ in. incision was made in the right linea semilunaris and the tumour was exposed. The tumour was with some difficulty brought outside the abdomen. The tension on its mesentery in order to do this produced a good deal of shock, which quickly passed off when it was relieved. It proved to be, as in Case 1, an ileo-cæcal intussusception and measured 3½ in. The invaginated bowel was reduced easily except for its last ½ in. This was swollen and œdematous and after reduction appeared as a raised œdematous ring on the surface of the intestine. The intestine was then returned into the abdomen and the abdominal wound was closed. The inflamed and vesicated skin of the abdomen was freely dusted with boric acid powder and the wound was dressed with iodoform gauze. The after-history was uneventful. Notwithstanding the raw state of the abdomen the wound healed by first intention and the stitches were removed on the eighth day after the operation. The patient was kept in bed for a month in order to consolidate the operation scar. The bowels were opened on the third day after the operation and a hard blood-stained fæcal mass was found. They were afterwards kept open regularly with small doses of cascara sagrada.

Both the patients in the above cases were shown at a meeting of the Pathological and Clinical Section of the Birmingham branch of the British Medical Association at the end of April and were then in perfect health.

Remarks by Mr. HEATON.—The two cases related above have a special clinical interest at the present time, when the whole question of the treatment of intussusception is under discussion. In each case the diagnosis was clear, the symptoms, though urgent, had only been in existence for a few hours, and the patient was in fairly good condition. Abdominal section was at once performed without any attempt being made by means of manipulation or inflation to reduce the intussuscepted bowel. Manipulation of the bowel through the abdominal walls has now been abandoned by most surgeons as a method of treatment in such cases, but inflation of the bowel *per rectum* is still as a rule tried before resorting to laparotomy. There is no doubt that a certain number of cases of intussusception can be reduced completely and the patients cured by such careful inflation, particularly when the intussusception is a very recent one; but it is at best a most uncertain method and at the same time by no means devoid of risk, for the bowel may easily be ruptured if too great pressure be employed. When operating upon such cases we generally find that the major portion of the intussuscepted bowel can be reduced without much difficulty. It is the last inch or half-inch which presents the chief difficulty; and it is quite impossible save by actual inspection to be sure whether complete reduction has been effected. It is for this reason that after apparent reduction by inflation the patients' symptoms frequently continue unrelieved and the tumour reappears. Reduction has in reality been incomplete and abdominal section later offers only a remote chance to a patient already exhausted by delay. Surgeons at the present day have practically abandoned the operation of relieving strangulated hernias without actual opening of the hernial sac and inspection of the condition of the bowel; and I venture to think that the same principle should apply to the treatment of intussusception. A rapid opening of the abdomen carried out aseptically adds practically no extra risk to the patient in the early cases, and in cases where reduction is found to be impossible affords the patient his only chance of recovery. Treatment by inflation should only be resorted to where from the patient's surroundings asepsis is impossible or where for other reasons active surgical measures are forbidden.

MEDICO-PSYCHOLOGICAL ASSOCIATION OF GREAT BRITAIN AND IRELAND.—Examinations for the certificate in psychological medicine of this association will be held in London, Edinburgh, Glasgow, and Aberdeen, on Thursday, July 7th, 1898. The examination for the Gaskell prize will be held in London at Bethlem Hospital on Friday and Saturday, July 8th and 9th, 1898. Candidates intending to present themselves for either of these examinations should give seven days' notice to the registrar (Dr. Spence, Burntwood Asylum, Lichfield), from whom any further information may be obtained.

Medical Societies.

CLINICAL SOCIETY OF LONDON.

Acute Dilatation of the Stomach.—Cirrhosis of the Liver.—Election of Officers.—Report of the Diphtheria Antitoxin Committee.

A MEETING of this society was held on May 27th, the President, Mr. LANGTON, being in the chair.

Dr. C. R. BOX and Mr. CUTHBERT S. WALLACE described a case of Acute Dilatation of the Stomach occurring in a youth, sixteen years of age, previously in good health, who came under observation on account of vomiting and collapse attributed to a blow on the epigastrium. The abdomen was rigid, distended, and almost motionless; its right lower quadrant was dull on percussion and tender in the region of McBurney's point. Peritonitis being suspected the abdomen was explored. An enormously distended stomach filled the whole of the abdomen, displacing the intestines towards the pelvis. The viscus was incised and emptied. Death followed in a few hours. Post mortem no cause was found for the gastric distension. Post-mortem digestion of the walls was rapidly advancing. The whole intestinal tube below the stomach was collapsed and empty.—Dr. PARKES WEBER recalled a case under his observation a few months since in which acute dilatation of the stomach was associated with acute febrile disease and pneumonia. The patient was a man fifty years of age. He died in collapse and no post-mortem examination was allowed.

Dr. HUGH R. SMITH read a paper on Seven Cases of Cirrhosis of the Liver occurring in Children and Young Adults. The clinical history and post-mortem appearance of each case was given in some detail. The ages of the patients varied from nine to twenty-four years at the time of their death. The cases fell into two distinct groups, corresponding fairly accurately with the so-called atrophic and hypertrophic cirrhosis of adults. Thus in the first four there were ascites, absence of jaundice, and small hob-nailed livers, which showed microscopically a well-marked multilobular arrangement of the new-formed connective tissue, and the course of the disease was short. Thus one case died eight days after the first appearance of definite symptoms and the most protracted only lived four and a half months. In the last three there was marked jaundice from the first, absence of ascites until the close of the disease, and a large liver, which showed a definite unilobular arrangement of connective tissue and very numerous new bile canaliculi.

The annual meeting was then held, the report presented at which showed the society to be financially in a flourishing position, and the following candidates for offices were duly elected:—President: Mr. John Langton. Vice-presidents: Dr. Sidney Coupland, Dr. James Frederic Goodhart, Dr. Leonard William Sedgwick, Mr. A. Pearce Gould, Mr. John Hammond Morgan, and Mr. William J. Walsham. Treasurer: Dr. William Miller Ord. Council: Dr. Arthur T. Davies, Dr. Archibald E. Garrod, Dr. Sidney Martin, Dr. W. Julius Mickle, Dr. J. F. Payne, Dr. F. G. Penrose, Dr. J. J. Pringle, Dr. Harrington Sainsbury, Dr. R. Percy Smith, Dr. J. C. Uhthoff, Dr. W. Hale White, Mr. James Berry, Mr. C. B. Lockwood, Mr. Stephen Paget, Mr. G. H. Makins, Mr. Rushton Parker, Mr. A. Q. Silcock, Mr. W. G. Spencer, Mr. T. P. Teale, and Mr. G. R. Turner. Honorary secretaries: Dr. J. Kingston Fowler and Mr. Charters J. Symonds.

Dr. CHURCH then read the report of the committee appointed in January, 1895, to inquire into the Clinical Value of Diphtheria Antitoxin. The committee was composed as follows: Dr. W. S Church (chairman), Dr. Stephen Mackenzie, Dr. Sidney Coupland, Dr. W. Hale White, Dr. Sidney Martin, Dr. W. Pasteur (honorary secretary), Dr. J. W. Washbourn, Dr. H. P. Hawkins, and Dr. E. Goodall. For the purpose of the inquiry 832 reports of cases were collected, but upon examination 199 of them had to be rejected, either because the committee were not satisfied as to the evidence of diphtheria or because the amount of antitoxin administered was not stated in normal units, leaving 633 available for further analysis. Of the cases which presented symptoms more or less severe of laryngeal affection nearly one half escaped the operation of tracheotomy, a very much larger proportion than is usually the case in laryngeal diphtheria treated in other

ways. The tracheotomies performed may be divided into two groups: (*a*) tracheotomy within twenty-four hours of the first injection and (*b*) tracheotomy at a later period. Only 2 out of the 75 belong to group *b*. The committee drew especial attention to these facts and also to the results of the operation of tracheotomy, in which the mortality amounted to 38·0 per cent., as opposed to 71·6 per cent. in the control series compiled from the records of the general hospitals before the introduction of antitoxin. The mortality fell as age increased, but it was in the first five years of life that the lessened mortality in the antitoxin series was most marked. It was to the lesser frequency with which membrane extended to the larynx and trachea in cases treated by antitoxin and to the effect of the antitoxin on them when membrane was present that the lessened mortality in the antitoxin series was mainly due. The total mortality in the 633 cases amounted to 124, or 19·5 per cent., as opposed to 29·6 per cent. in the non-antitoxin control series. Not only was the mortality in the antitoxin series much less than in the other, but the duration of life in the fatal cases was longer, a fact which has considerable bearing on the frequency with which paralytic symptoms occurred. The closest investigation failed to discover any connexion between the occurrence of paralysis and the amount of antitoxin injected, nor did the period of the disease at which it was first used appear to exert any influence on the occurrence of paralytic symptoms. Some form or other of rash followed the injection of antitoxic serum in very nearly a third of the cases. The rashes could be divided into two main types, those which were of an erythematous and those of an urticarial character; the former largely predominated. In no instance did the presence of a rash appear to have any bearing on the ultimate result of the case. Joint pains which were not met with in the non-antitoxin series and were apparently due to the antitoxic serum were observed in a small number of cases. The percentage of deaths with suppression of urine was found to be practically the same in the antitoxin and the non-antitoxin series. The general result of the inquiry showed that in the cases treated with antitoxin not only was the mortality notably lessened, but the duration of life in fatal cases was also prolonged. The injection of antitoxin may produce rashes, joint pains, and fever; with these exceptions no prejudicial action has been observed in the series of cases investigated to follow even in cases in which a very large amount of antitoxin serum has been used.

BRADFORD MEDICO-CHIRURGICAL SOCIETY.

Exhibition of Specimens.—History of Syphilis.—Henoch's Disease.—Peliosis Rheumatica.

A MEETING of this society was held on May 3rd, the President, Dr. ARNOLD EVANS, being in the chair.

Dr. S. LODGE showed specimens of (1) Sarcoma of the Eyeball; and (2) Foreign Body in the Eyeball, together with several microscopic specimens.

Dr. GLADSTONE showed a Stomach affected with Diffuse Cancer of the Pyloric Extremity.

Mr. MIALL read a paper on the History of Syphilis. He mentioned that though contagion in general was recognised from the earliest times, yet it was not till the end of the fifteenth century that contagion from sexual connexion was distinguished. It is probable that much of the "leprosy" spoken of by writers was really syphilis. The study of contagion threw much light on disease in general and was probably instrumental in fostering habits of cleanliness. The use of mercury in the treatment of syphilis had been in vogue from very early times and the effects of mercurialisation were also recognised. Reactions in favour of other drugs had from time to time occurred, and guaiacum, China root, sarsaparilla, juniper, mezereon, sassafras, and many others had been vaunted as specifics in the treatment of syphilis. Iodine was discovered early in the present century and was used in the treatment of venereal ulcers of the throat as a substitute for burnt sponge.—Remarks were made by Dr. GOYDER, Dr. HORROCKS, and Dr. CAMPBELL, and Mr. MIALL replied.

Dr. H. ANGUS read a paper on Henoch's Disease. Alluding to the confusion existing in the classification of purpuric diseases Dr. Angus justified, on the ground of this confusion, the use of the physician's name who first described cases in which there was a definite group of symptoms associated with a purpuric eruption. The symptoms were colic, abdominal tenderness, vomiting often of green material, bloody stools, pain and usually swelling of the joints. A further characteristic of the disease was the recurrence of the symptoms at intervals of eight days or more. Dr. Angus then read notes of three cases which had come under his care. The first case was that of a boy, aged nine years, who had always been strong and healthy and was the son of well-to-do working people who lived on the edge of the moor. There was a family history of rheumatism on the father's side. The case conformed closely to Henoch's type. There was at first slight pain in the limbs, then severe hæmorrhage from the bowels and abdominal pain; the next day the purpuric rash appeared, chiefly on the limbs. The abdominal pain was very severe, resembling lead colic. There was no fever. In four or five days there was improvement, but this was followed by a relapse with recrudescence of all the symptoms; the temperature rose to 101° F. One of the extravasations near the knee-joint formed a superficial abscess which was opened and healed readily. Several relapses occurred and convalescence was not established for three months and there was then some pain in one foot and one wrist. There was ultimately complete recovery. The second case was of a similar nature to the first, except that there was hæmaturia. After three months' treatment in bed the patient was convalescent and was able to walk about, but the urine remained albuminous. He died three months later from nephritis. The third case was that of a boy, aged twelve years, in comfortable circumstances, with a good family history. The illness began with epistaxis and abdominal pain. There were tenderness of the abdomen and vomiting and there was a purpuric rash about the elbows and the knees. There was no rise of temperature or hæmorrhage from the stomach or bowels. After about a month's treatment in bed he recovered, but for some time was nervous and irritable. In none of the cases was there any heart murmur. Dr. Angus mentioned that Dr. Dreschfeld of Manchester had described a number of cases of Henoch's purpura and that he did not consider it a very rare disease. Dr. Angus stated that nothing was known as to the pathology of the disease and that examinations of the blood had given negative results. Fatty degeneration of the cutaneous vessels has been described. Bacilli had been obtained from patients dying with symptoms resembling those described, but these might have been cases of septicæmia. Henoch suggested the presence of a vaso-motor neurosis, leading to paralytic dilatation of the smallest blood-vessels, stasis of the blood, and rupture of the vessel wall or diapedesis of the corpuscles. The abdominal pain might be due to sympathetic irritation. Treatment had been confined to rest in bed with morphia to relieve pain. Hæmostatics appeared to have had no effect.—The paper was discussed by Dr. GOYDER, Dr. BERRY, Dr. MAJOR, and Dr. CAMPBELL, and Dr. ANGUS replied.

Dr. METCALFE read a paper on Peliosis Rheumatica and showed sketches illustrating the nature of the eruption. He described the course of the affection and recommended salicylate of soda followed by iron and arsenic in the treatment.

Reviews and Notices of Books.

William Stokes: His Life and Work (1804–1878). By his Son, WILLIAM STOKES, Surgeon-in-Ordinary to the Queen in Ireland. London: T. Fisher Unwin. 1898. Pp. 256. Vol. IV. of "Masters of Medicine." Edited by the late ERNEST HART, D.C.L. Price 3*s.* 6*d.*

OF the admirable series of Masters of Medicine already published we have read none with deeper interest than the Life of the great Irish physician, William Stokes, and although his son (Sir William Stokes), who writes his father's memoir, very modestly says that owing to his relationship he is to a great extent at a disadvantage, we think no one could have done such a work so well, for he thoroughly understood his father's aims, his patriotic love of his country, his desire to elevate the dignity and honour of his profession, and above all he knew how his father by "precept and example strove to teach the duties of a true and God-fearing physician."

William Stokes belonged to a family members of which have for five generations occupied prominent positions in the

public life of Ireland. Born in Dublin in 1804, William Stokes was the second son of Whitley Stokes, a man who was scholar of, senior fellow of, and regius professor of medicine in, Trinity College, Dublin. His influence on his son was very great, not merely owing to his varied gifts and his remarkable learning, but also because, as Theobald Wolfe Tone wrote, he looked upon him "as the very best man he had ever known." After a careful preliminary education at home, although, as he afterwards very much regretted, he was not allowed to enter college, young Stokes went to Glasgow, where he studied chemistry under Professor Thompson. He subsequently proceeded to Edinburgh, where he had the good fortune to come under the influence of Professor Alison. Under him he developed that love for clinical medicine and original research which ever afterwards so characterised him. It was at this time that Laennec startled the profession by the discovery of the stethoscope, and young Stokes in 1825 (when he was only twenty-one years of age and before he had obtained any medical qualification) published in Edinburgh a small treatise on the use of this instrument for which he received the sum of £70. In 1828 he wrote two lectures on the Application of the Stethoscope to the Diagnosis and Treatment of Thoracic Disease. Graduating in Edinburgh in 1825, Stokes returned to Dublin. In the next year we find him beginning his work at the Meath Hospital (at the early age of twenty-two years), where for forty-nine years, as one of the greatest clinical physicians who ever lived, he attracted students not only from all parts of the United Kingdom, but from the Continent and America. It was here that, associated with his beloved friend and colleague Graves (the great authority on fevers who inspired Trousseau and to whom we owe our earliest knowledge of "Graves's" disease), he completely reformed the system of clinical teaching, the principle being "to teach the individual pupil, to encourage him to learn, to show him how to teach himself, to bring him into the true relation in which he ought to stand with his instructor, to make him familar with bedside medicine, to show him the value of every new fact and observation in medicine, and to make him know the duty as well as make him taste the pleasure of original investigation." His hospital appointment gave him full scope for his powers of observation, of which he fully availed himself; and as a result in 1837 he gave the profession his great Treatise on Diseases of the Chest, a book characterised by Sibson as a "series of living pictures of disease," and one of the most valuable and far-reaching works which ever emanated from the Irish School of Medicine. In 1854 his Diseases of the Heart and Aorta appeared. It was subsequently translated into German, Italian, and French, and in this book, in connexion with fatty heart, the now well-known "Cheyne-Stokes respiration" was graphically described; while the mode of treatment known as "the Schott Method" is here anticipated by Stokes. This work gave him the same pre-eminence as an authority on heart affections that his first book had done on the other diseases of the chest. In 1874 his Lectures on Fever were published, and he also contributed to the *Dublin Journal of Medical Science*, to the "Cyclopædia of Medicine," and to the *London Medical and Surgical Journal*. It was owing to Stokes mainly that in 1838 the Dublin Pathological Society was founded, and he was one of the first secretaries. We have said enough to show that Stokes's original contributions to medicine entitle him to be placed in the very first rank of the "Masters of Medicine," but like other great men of the healing art, and notably his friend, Sir James Y. Simpson, he was gifted with a many-sided nature, his specialities being a love for the fine arts and antiquities. At a very early age he exhibited a liking for poetry and romance and this passion was intensified by reading the Waverley Novels. There is no country richer in archæological remains than Ireland, and this circumstance, coupled with Stokes's close association with such men as Petrie (his life-long friend, whose memoir was his final literary effort), Burton, Sir Samuel Ferguson, Thomas Davis, Mangan, and Anster, developed and intensified his remarkable taste for poetry and art. As an evidence of his recognised pre-eminence in such subjects he was elected in 1874 President of the Royal Irish Academy. It is interesting to know that he has transmitted these high tastes to his descendants—indeed, this "Life" of him is dedicated to his daughter, Margaret McNair Stokes, his "constant companion," who is everywhere acknowledged to be one of the best living authorities on antiquarian subjects.

Want of space prevents our referring to Stokes's views on medical education and on medical ethics (his admirable address on this latter subject to the students of the Meath Hospital should be republished and ought to be read by all young medical men), to his thoroughly Irish humour, to his great desire to raise the status of his profession, and to the many honours (professional and otherwise) which were heaped upon him; but we have said enough to show that this "Life and Work" of William Stokes, written with such literary finish by his highly-gifted son, should find a place in the library not only of every medical man who loves his profession, but also of those who admire true ability and who feel a kinship in what is most pleasing, helpful, and stimulating in the work and writings of their fellow-men.

Inflammation of the Bladder and Urinary Fever. By C. MANSELL MOULLIN, M.D. Oxon., F.R.C.S. Eng., Surgeon to, and Lecturer on Surgery at, the London Hospital; Examiner in Surgery at the University of Oxford, &c. London: H. K. Lewis. Pp. vi. and 156. 1898. Price 5*s*.

WE extend a cordial welcome to this book, for it is the first in the English language in which has been fully set forth the modern theory of cystitis and urinary fever. The influence of mechanical injury, as by a calculus, and of irritation, such as cantharides excreted with the urine, in giving rise to inflammation has long been recognised, but until very recently the fact was not appreciated that a cystitis evoked by either of these forms of irritation had no tendency to persist when the cause was removed and never in itself went on to the formation of pus. For a cystitis to be suppurative the presence of micro-organisms is absolutely essential. When it had been discovered that in all cases of suppurative inflammation of the bladder micro-organisms were present it was too hastily assumed that the presence of these bacteria was all that was necessary to set up a cystitis, but it has been clearly shown that injections of the very same microbes or their products into a healthy uninjured bladder were not necessarily followed by the appearance of any lasting inflammation; in one or two days they generally entirely disappeared. If, however, some injury had been inflicted previously on the bladder, if its walls had been rubbed or bruised, then a very different result followed. The septic injection was the starting point of a severe and protracted inflammation, the vessels of the vesical mucous membrane became dilated, much exudation occurred, and large quantities of pus were found in the urine. Thus it was shown that two sets of conditions are necessary for the occurrence of a septic cystitis—firstly, the presence of special micro-organisms, and, secondly, an increased vulnerability of the bladder wall. In a few cases, indeed, injections of virulent culture did produce a cystitis with suppuration, but these exceptional results are doubtless to be explained by the necrotic action which the toxins of these bacteria have on the vesical mucous membrane, so that the

toxins damaged the epithelium of the mucous membrane sufficiently to allow the bacteria themselves to set up a purulent cystitis. The most common conditions which act as predisposing causes of cystitis are congestion of the vesical mucous membrane and retention of urine. The congestion probably leads to impaired nutrition of the protective epithelium, with the result that it is less able to withstand the attacks of the micro-organisms; retention of urine never by itself causes cystitis, even though it may last for years, but retained urine forms a most admirable medium for the growth of very many forms of bacteria, and a further source of irritation is found in the decomposition of urea. Mr. Mansell Moullin considers it proved that only two micro-organisms can be credited with the power of breaking up urea so as to set free ammonia. These are the urobacillus liquefaciens septicus and the bacillus coli, though the latter is much less effective in this respect than the former. Ammonia, however formed, is an intense irritant to the mucous membrane and so materially assists in starting and keeping up the cystitis. Another point of great importance is the question as to the method by which these bacteria find their way into the bladder. The answer must unhesitatingly be that in the vast majority of the cases they are carried in by catheters. It is no easy matter to make perfectly aseptic the meatus urinarius, but even more difficult is it to prevent a catheter from carrying into the bladder the germs which are already in the urethra. A still more fruitful source of infection is the catheter itself; though its surface may be smooth and polished the interior is nearly always rough and irregular, so that even if at first it should be aseptic after it has been used a time or two it will be almost impossible to render it free from germs. If it be metallic it may be boiled, but the ordinary gum-elastic catheter cannot be cleansed by heat; many of its faults are innate and Mr. Mansell Moullin has had some catheters made in which these faults have been obviated. The catheter is quite solid beyond the eye and its interior is as smoothly polished as the outer surface. Sterilisation is almost impossible if any greasy lubricant is used, as the fat protects the germs from the action of the antiseptic. The author advises boroglyceride or lanolin which has been sterilised and which is kept aseptic by the addition of carbolic or boric acid, and further we are told that boric acid in a saturated solution is the most satisfactory antiseptic to employ.

Though in most cases the germs setting up the cystitis have been introduced from without by the use of a catheter, yet in a few cases it is extremely probable that they have been carried by the lymphatics from the neighbouring rectum, and this is especially likely to be the case when the cystitis is due to the bacillus coli.

The treatment to be adopted for suppurative cystitis follows naturally from a due appreciation of its pathology, and by no means the least important part is the prophylaxis which we have indicated above in speaking of the sterilisation of the catheter. When cystitis is already present emptying and draining the bladder or washing it out are necessary according to the severity of the case. For washing out the bladder Mr. Mansell Moullin prefers sodium chloride and boric acid dissolved in a solution of sodium borate if a mere cleansing action is required, but if a germicide is needed he advises a 1 per cent. solution of nitrate of silver.

We have thus far omitted to speak of the chapter devoted to Urinary Fever and we fear that lack of space will not enable us to deal with it as it deserves, but we must at least summarise this very clear exposition of a most important subject. There are certain very striking phenomena which only occur after an operation on the urinary organs. A patient has a catheter passed, and severe rigors follow with perhaps death in a few hours or days; such strange results from so simple a procedure demand an explanation. The explanations which have been offered of them can hardly be called satisfactory and yet the results are often so serious that surgeons have made great endeavours to understand their pathology in order to be better able to prevent their occurrence. Mr. Mansell Moullin classifies the cases in four divisions; in the first he puts those in which only a single rigor occurs, in the second profound collapse results, often followed by death in thirty-six hours. Both these forms the author attributes to septic absorption, the difference depending on the dose and the rapidity with which it enters the circulation. In the third form the symptoms do ot follow the operation for three or four days; in these cases a feeble pulse and dry tongue with increasing wandering delirium soon lead to a fatal issue. These symptoms are to be attributed, we are told, to a septic cystitis with an ascending invasion of the kidneys themselves. In the fourth variety there is continued fever with recurring rigors, the fever being due to invasion of the circulation by the organisms. There are certainly many things to be said in favour of this classification and on behalf of the author's contention that disease of the kidneys is no essential factor in urinary fever. We must confess that we think it probable that the nervous theory, which is often advanced to explain urinary fever, will be found inadequate to account for more than a very small minority of cases.

We have said sufficient to show that in Mr. Mansell Moullin's work these important problems are discussed thoroughly and in a manner which is fully abreast of the knowledge of the present day and the consideration of the principles of treatment is as thorough as the pathology. We can recommend a perusal of this interesting volume to all surgeons.

The Diseases of the Lungs. By JAMES KINGSTON FOWLER, M.A., M.D. Cantab., F.R.C.P. Lond., and RICKMAN JOHN GODLEE, M.S. Lond., F.R.C.S. Eng. With 160 illustrations. London: Longmans, Green and Co. 1898. Price 25*s.*

THIS work constitutes a most important addition to the literature of scientific and practical medicine. It is, moreover, a sign of the times, for it brings home to us the truth that even in a subject which might be thought to rest wholly within the physician's province it is needful for its complete exposition to call in the aid of the surgeon. It was a happy thought, marking thus a new departure, which led to the coöperation of such distinguished representatives of the two great branches of our profession in the production of a work of this class. The result has been no less fortunate, for not only is the work more complete in its survey than any similar book with which we are acquainted, but it shows how advantageous it is to have the subject viewed from the two sides. Naturally the chief share falls to Dr. Kingston Fowler, whilst to Mr. Godlee are assigned chapters dealing with injuries of the lungs and pleura, the surgical treatment of pulmonary cavities and of tumours and hydatids, of pleural effusions and empyemata, together with a description of actinomycosis, and a valuable introductory chapter on the Anatomy of the Chest. We may first turn to the main bulk of the volume which is the work of Dr. Fowler.

In the first place the reader cannot fail to be struck by the orderliness with which the contents of the volume are arranged. There is not any condition of the lungs and pleura known which does not in its due place receive attention. The various affections are dealt with in a manner proportionate to their extent and importance, whilst a pleasing innovation is the introduction at the head of each chapter of a summary list of contents, with page references, which has not,

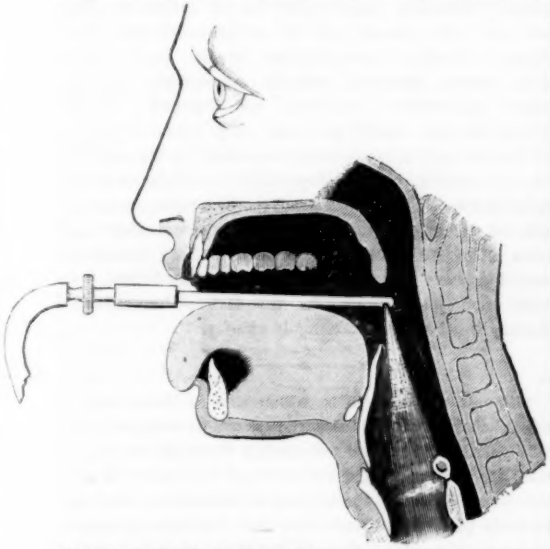
happily, prevented the addition at the end of the volume of a very complete index. These indications of an orderly system are further borne out in the individual chapters, where each branch of the subject is discussed in a regular rotation which applies to all the diseases. The description of the diseases is preceded by a chapter on Physical Diagnosis, which is thoroughly practical and not overweighted by theoretical speculations. We join with Dr. Fowler in the regret that the nomenclature of physical signs is still so equivocal, and we are glad to note that he adheres to the terminology proposed by the Committee of the International Medical Congress. Diseases of the Trachea are first described, and here, as elsewhere in the volume, details are given of actual cases, a practice which adds much to the value of the book. We may specially cite the notice of a remarkable case of chronic tracheitis, in which the posterior wall was so thickened as to be mistaken for growth, so that tracheotomy was performed. The thickened membrane was cauterised and the patient made a good recovery after a severe illness from broncho-pneumonia and pericarditis. Stenosis of the trachea from organic stricture and from compression is discussed, as well as perforation of the trachea by enlarged glands or aneurysms. The chapters on Bronchitis are excellent, but we may pass them by in order to draw especial attention to that on Bronchiectasis, which is most thoroughly considered. The varied etiology of this condition, the importance of its accurate recognition, and the difficulties in its successful treatment render it a matter for thoughtful and accurate analysis and this it has certainly received at Dr. Fowler's hands. The encouraging account he gives of the value of treatment by the "creasote vapour bath" introduced by Dr. Arnold Chaplin and the full details given of its application will certainly be welcomed by the practitioner, who has few more distressing and disappointing cases to treat. A separate chapter is devoted to Bronchiectasis in Children. This is followed by chapters on Bronchial Stenosis and Diseases of the Bronchial Glands. In the chapter on Emphysema the pathogeny of the condition is adequately discussed and the great service rendered to medicine by Sir W. Jenner on this subject is fully recognised. It may be mentioned that the treatment of emphysema by the compressed air bath is spoken of with approval. The chapter on Asthma opens with a striking description of the asthmatic paroxysm and in speaking of its pathology Dr. Fowler enumerates no fewer than eight alternative hypotheses which have been propounded. At the same time he points out that there is now little dispute as to the nervous factor in the affection, the point still *sub judice* being mainly as to whether the bronchial narrowing is due to temporary swelling of the mucosa by vaso-motor influence or the more classical view of spasmodic contraction of the bronchial muscles. To us it has always seemed that the efficacy of anti-spasmodics, and especially of vaso-dilators—such as the nitrites—tells far more strongly in favour of the latter than of the former view. Dr. Fowler has some judicious remarks on treatment, and his warning to the young practitioner not to prescribe until he has heard the experiences of the patient is sensible, for the asthmatic is a law unto himself; there is no affection in which idiosyncrasy plays so large a part, for, as the author pithily puts it, "asthma is a disease of 'exceptions.'" Many chapters are devoted to Pneumonia, its varieties, and its sequels, but we must content ourselves here with drawing attention to the excellent discussion upon the bacteriology of acute pneumonia, the description of chronic and subacute pneumonia, and on pulmonary fibrosis. Next in order come the diseases due to inhalation of dust, the destructive changes which are responsible for so large a premature mortality amongst workers in dusty trades being, as Dr. Fowler shows, due to tuberculosis, which is favoured as much by the unhygienic conditions of the workshops as by the inhalation of dust. Chapters on Congestion, Brown Induration, and Collapse follow, and then comes what is undoubtedly the *pièce de résistance* of the book, the ever-pressing subject of Pulmonary Tuberculosis. It needs many chapters for its exposition, and this is in all respects so thorough and comprehensive, so fully abreast of the knowledge of the day in etiology, pathology, and treatment, that it will be studied with profit even by those who have had most experience in this common disease of our country. Dr. Fowler recognises four types, to the characteristics of which he gives separate consideration. They are: (*a*) miliary tuberculosis; (*b*) caseous tuberculosis; (*c*) fibroid tuberculosis; and (*d*) chronic or fibro-caseous tuberculosis. He discusses the subject of Pyrexia in a separate chapter, whilst in his account of the chronic disease he introduces the very instructive diagrams showing the usual progress of invasion of the lungs which he first brought into notice some years ago. Upon Treatment, he deals with many topics in turn, gives full approbation as well as description of the open-air treatment, considers that "tuberculin" is a remedy which cannot be justifiably used as it induces pyrexia and may disseminate tubercle in the body, treats of antiseptic remedies, of the treatment of local conditions, of climatic treatment, and conveys much wise and practical counsel. There is a fuller study of the subject of Pulmonary Syphilis than is ordinarily met with in such works; Actinomycosis is described by Mr. Godlee, whilst Dr. Fowler writes on Pulmonary Mycosis and on Hydatids. Embolism, Thrombosis, Aneurysm of the Pulmonary Artery, Hæmoptysis, each in turn receive attention, the Pulmonary Complications of some Acute Specific Diseases closing the portion of the work devoted to the lungs.

After a chapter on Injuries of the Pleura by Mr. Godlee, the subject of Pleurisy is treated by Dr. Fowler. Here we have an ample account of the bacteriology of pleural inflammations, and it is interesting to note that in the author's opinion tuberculosis is responsible for very many cases of sero-fibrinous effusion, although it is not always possible to detect the bacillus in the exudation. Mr. Godlee's contribution of the Surgical Treatment of Diseases of the Pleura is, as is to be expected, full of information and of practical suggestion. He also contributes an article on Peripleuritis, Caries, and Necrosis of Ribs and Mediastinitis. Pneumothorax, Hydrothorax, Hæmothorax, and Chylothorax are next taken, the last-named rare condition being illustrated by the clinical and pathological details of a very instructive case. Tumours of the Pleura, Diseases of the Diaphragm, Tumours of the Mediastinum, and Pulmonary Osteo-arthropathy—these are some of the subjects which receive attention and render the work so very complete. Nor must we close this notice without a word of praise for the admirable anatomical chapter by Mr. Godlee with which the book opens. It is sufficiently detailed to render it of much value in the after consideration of pleural and pulmonary diseases, but what is particularly to be noticed is the abundance of excellent illustrations which here find a place. These alone are worth careful study and by the light of Mr. Godlee's text they teach most important facts which are of real practical value. Speaking of illustrations, it must be said that the whole volume is most fully furnished in this respect, a large proportion of the figures being original. These together with the general style of production of the work add to its attractiveness and enhance its value. It only remains for us to express the pleasure with which we have perused a book which bids fair to rank as a standard authority on a subject of high importance, and we may well congratulate the authors on the successful accomplishment of their task. The work will be widely welcomed.

New Inventions.

LARYNGEAL AUTO-INSUFFLATOR.

THE superiority in laryngeal conditions of medication by powders, on account of the more lasting effects of such substances as compared with solutions, coupled with the difficulty of accurately insufflating pulverised bodies into the larynx by individuals unaccustomed to throat work, has led me to devise an instrument (made for me by Messrs. Wood and Son, Manchester) by which powders can be readily blown into the organ by the patient or his friends. The apparatus consists of a straight tube with a receptacle for powder at one extremity and a small hole somewhat like the eye of a catheter at the other. This aperture is to be kept downwards when the tube is introduced and a tiny ivory knob on



the insufflator indicates its position. A tube and bellows complete the instrument, which should be passed into the mouth, resting on the tongue, until the soft palate is touched, the tongue being protruded. A deep inspiration is then taken and simultaneously the bellows are forcibly compressed, when the powder is partly aspirated and partly blown into the larynx. The advantages of the insufflator appear to be that (1) it can be used by the patient or his friends owing to the abolition of the usual terminal curve, thus obviating irritation of the sensitive parts about the pharynx by the inexperienced manipulator; (2) the end is not liable to be jerked when the powder is insufflated, as occasionally happens in the instrument ordinarily employed; (3) the powder is evenly distributed; and (4) the price is comparatively small (5*s*. 6*d*.).

St. Ann's-arcade, Manchester. E. S. YONGE, M.D. Edin.

NEW ASEPTIC OPERATION AND DRESSING TRAYS.

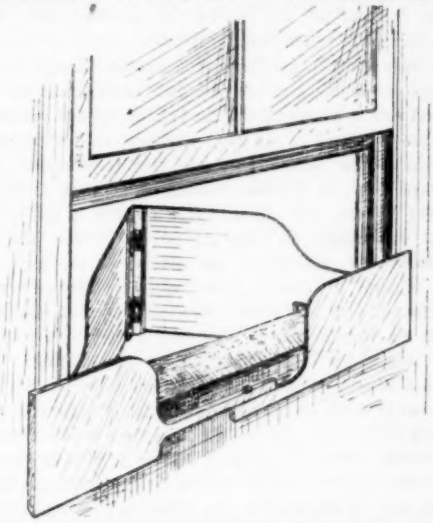
HAVING given an extensive trial to the various dressing trays usually sold and to several of my own design, I have now arrived at the most convenient and useful shape which has been made for me by Messrs. Arnold and Sons, West Smithfield, London. The trays are made in sets of three and all fit into one another to economise space and to keep out dust. They are made of tinned copper and can be boiled, scrubbed, and generally made aseptic. They serve for boiling instruments in before or after an operation, while they are adapted for carrying the dressings and sponges in a moist condition to an operation. They are equally adapted for private and hospital work. They fit almost every part of the body. To catch liquid at an ordinary laparotomy or operation about the inguinal canals one tray is put between the thighs and jammed well up against the perineum, while the other two are placed close up against the loin and thigh on either side of the patient. Any amount of washing out and sluicing the skin or operation area may be freely indulged in without wetting the tables and blankets. For all operations the trays serve as instrument holders half filled with antiseptic lotion. It will be found very convenient to keep a pair with, say, the usual instruments for curettement

of the uterus always stowed in them—enema, uterine tube, Hegar's dilators up to 15, curettes, volsellum, &c. Two form a dust-proof box and can be kept on a shelf ready for instant use.

T. HOPE LEWIS,
Surgeon, Auckland Hospital, New Zealand.

A SAFETY WINDOW-CLEANERS' "CHAIR."

WE give below an illustration of a device for the prevention of accidents from window-cleaning. In our opinion there should be no necessity for such an invention, inasmuch as in the interests of humanity local authorities should have the power, if they do not already possess it, of making it illegal for a person either to sit or stand on a window-sill above the ground floor of a building for the purpose of cleaning a window. Until such necessary laws are made, however, we welcome any device which will prevent or minimise danger to life or limb from this cause. As will be seen from the illustration, two strong pieces of board rest against the frame and brickwork enclosing the frame of the window. These boards are connected together by two



arms of wood which slide one upon the other in order that the boards may be regulated to the width of the window. These arms are fixed together by means of a screw. Hinged to the side of each board facing the street are two other pieces of board which meet at an angle formed by means of a strong hinge. An immoveable back rest is thus formed for the person cleaning the window, who is consequently enabled with safety to use both hands in the task of cleaning the window, instead of being forced to hold on to the bottom of the frame with one hand. The price of the article is only 4*s*. 6*d*., and communications concerning it should be made to the inventor, Mr. H. Gold, 21, Great Eastern-street, E.C.

THE LANCET.

LONDON: SATURDAY, JUNE 4, 1898.

WE publish to-day our twelfth supplement in support of the Metropolitan Hospital Sunday Fund and in so doing, for this particular occasion only during the year, address ourselves to a body wholly outside the circle of those to whom as a rule we submit our weekly issues. But by this time it is well understood by our readers that we make this departure from our custom in the interests of a cause common to all alike—in the interests of work which is, on the one hand, dependent upon medical efforts for its due carrying out, but which is, upon the other, the result of the charitable contributions and foresight of the public. Hospital work forms a neutral ground upon which all men, medical and lay alike, can meet and unite to help those of their brethren who have the strongest possible claims on their humanity—the sick poor.

The supplement which we issue to-day, while it deals with the work and growth of the Hospital Sunday Fund from its inception, is written in two parts: the first being a statistical statement illustrated by a few easy and obvious morals drawn from the figures, and the second a short story describing a situation which would be an exceedingly frequent one in the unimaginable case of London being deprived of the services of its hospitals. We have resorted to fiction because it has seemed to us that the short story would form a convenient medium through which to impress the claims of the Hospital Sunday Fund on the general public, but we should like to point out that our story does not avail itself of the usual privileges of romance; for whereas fiction generally selects terrible examples and portrays them as common events, so that a situation set out by the pen of an adept novelist is apt to be much embellished by the art of the writer and by his feeling for chiaroscuro, our author, on the contrary, has chosen a commonplace incident, one of daily occurrence, and has shown how an annoying accident would be transformed at once into a very real tragedy were it not for the intervention of the hospitals. He has not sought to unfold a harrowing tale; he has not designed to shock or frighten persons out of large subscriptions in self-defence: he has simply wished to furnish small subscribers with a practical reason why they should subscribe in their numbers. If the masses will spare their 5*s.* we may be certain that the classes will subscribe their £5. For the Metropolitan Hospital Sunday Fund affords a peculiarly fit opportunity to persons of restricted means of tendering support to the medical charities of London. A small subscription given in this way possesses both actually and sentimentally a value which it could not otherwise have. It is no small thing that the poor man contributing his mite upon this occasion should be able to feel that it goes to swell a Fund large enough to form an indispensable part of the charitable revenues of the world's greatest city and yet to be drawn mainly from sources such as his own benevolence has opened up. Thousands of persons in London are so situated. The subscription list with its regulation guinea is not for them, and were it not for the recurrence of the Fund collections they would stand quite aloof, wishing well to their suffering neighbours but being powerless to promote their well-being in any way.

We need not labour the arguments of our supplement, the whole teaching of which is that the right-thinking inhabitant of London should levy an annual rate upon himself according to his means. It remains for us only to say, in words which we have employed almost identically before, that to all orders of mind, and all social grades, and all creeds alike the Metropolitan Hospital Sunday Fund must appear as a noble charity, splendidly directed, economically managed, justly administered, practical, and humane. To this Fund the rich should give, not only because they are rich but because they are directly benefited by the hospitals; the poor should give and they need no reminding what the hospital means to them when they are sick; the benevolent-minded should give, for no scheme can come before them more fitting for their alms than a fund to benefit the suffering poor; and, lastly, men of business habits, practical men, should give, for the Metropolitan Hospital Sunday Fund represents order in charity.

"OF all the diseases to which man is liable there is none that in point of destructiveness can be compared with tuberculosis." Such are the opening words of an article in the *Practitioner* for June, the whole of the number in question being devoted to the subject of tuberculosis, more particularly pulmonary tuberculosis, and containing numerous papers on the subject from all points of view by some of our most eminent authorities. The editor is to be congratulated on the success which has met his endeavours, for seldom has a better collection of papers been published in any single issue of a medical magazine.

The first article, on the Treatment of Consumption, is written in characteristic style by Sir SAMUEL WILKS. After a short historical *résumé* of some of the methods which have been employed the writer is forced to the conclusion that "the remedy for consumption is not medicine but fresh air. ..... Air and sunshine are the needs of the consumptive; without them no other remedies will succeed." This is the cry which rings throughout all the succeeding papers. It is an opinion which is rapidly gaining ground with all physicians, and without doubt will form the basis in all future treatment of the "national complaint" of all countries. Another of Sir SAMUEL WILKS'S remarks is worth quoting. It is expressed rather quaintly, but contains a great principle: "When reading at school of DIOGENES in his tub and the visit of ALEXANDER the Great to him, I thought he was a man of very bad manners in telling the monarch to get out of his sunshine, and it was not until late years that I took a different estimate of the philosopher. After an attack of influenza I went to Worthing to convalesce, requiring air and sunshine. Everything else in the

world was put aside for these; they were my only wants. When, therefore, I sat looking on the sea and basking in the sun a friend stopped in front of me to talk, he was stripping me of my only shred of comfort and I exclaimed, 'Get out of my sunshine!' I then discovered the greatness of DIOGENES, who evidently knew that the sun was the source of all power."

The second paper is by Dr. ARTHUR RANSOME on the Susceptibility to Tuberculosis under Different Conditions. The conditions include race, climate and locality, toil, sex, age, and heredity. Dr. RANSOME draws attention to the fact that in Dr. LOMBARD'S maps of the distribution of phthisis, the only portions of the earth's surface from which the colour is entirely absent are the arctic and subarctic regions, deserts, and high ranges of mountains, and it is precisely in those parts that human beings are fewest and most sparsely scattered over the ground. Dr. RANSOME speaks doubtfully of the influence of heredity, and comes to the conclusion that "it is highly probable that heredity has much less to do with consumption than is popularly supposed, and that it ranks very far behind many other predisposing causes. This view is gradually forcing its way into the insurance offices, the medical advisers of many of them being far less disposed to "load" applicants with a family history of phthisis than was formerly the case. After discussing the conditions named above the writer concludes "that, with the exception of soil, none of the influences that have been now passed in review have much to do with the spread of tubercular disease."

Dr. SIMS WOODHEAD'S contribution to the Bacteriology of Tuberculosis is excellent, telling all that is known about tuberculosis from a bacteriologist's point of view. The manufacture of KOCH'S new tuberculin is fully considered, but the expression of any definite opinion as to its therapeutical value is wisely refrained from. The important subject of the Relation of Tuberculosis of Animals to Man is dealt with by Dr. ALLAN MACFADYEN, who, after enlarging upon the results obtained by the Royal Commission upon Tuberculosis (1895), comments on several points which should receive the attention of those authorities whose duty it is to regulate and supervise the meat-supply and the milk-supply. His remarks are strongly and concisely expressed. He urges "an adequate inspection of cattle by veterinary surgeons; and the removal of suspected animals from the dairy sheds is required in the first instance. The use of tuberculin as a diagnostic agent is of the greatest value in this respect and the neglect of its aid is inexcusable ..... An early diagnosis of this infectious disease, whether in man or animals, is essential if we are to combat its stealthy spread and so limit the dangers that exist from the two great channels of infection—the sputum of phthisical patients and the milk of diseased animals." With this all must agree. The matter is still further dealt with by Dr. A. K. CHALMERS in a paper on the Causation of Tuberculosis and its Prevention by Legislation, and also by Dr. HERMANN M. BIGGS in an article on the Prevention and Restriction of Pulmonary Tuberculosis in the City in New York. Both these papers form most interesting reading and contain many valuable suggestions.

The Climatic Treatment of Tuberculosis is considered by several authors. Dr. C. T. WILLIAMS writes on the Treatment of Pulmonary Tuberculosis by Residence at High Altitudes; Dr. MICHAEL G. FOSTER on the Mediterranean Littoral as a Health Resort for Phthisis; Dr. F. M. SANDWITH on Desert Climate for Lung Tuberculosis; Dr. ALFRED P. HILLIER on the Climate of South Africa; and Dr. F. PARKES WEBER on Ocean Voyages in Phthisis—a series of papers which will prove most valuable for reference. Much interest will attach also to the papers on the Open-air Treatment of Consumption by Dr. HERMANN WEBER, Dr. RUFFNACHT WALTERS, and Dr. F. W. BURTON-FANNING. As we have said in our columns, when publishing communications on this subject from the same pens, we believe that this method of treatment will be largely adopted in the near future. The question naturally arises as to the most desirable methods of carrying it out. Experience alone can decide as to which course promises the better results—the treatment of phthisical patients in sanatoria under the care of an "expert" or the careful supervision of such patients in private houses by independent medical men.

Two other papers require to be mentioned—the Hospital Treatment of Consumption, by Dr. J. E. POLLOCK, and the Medicinal Treatment of Tuberculosis, by Dr. HECTOR MACKENZIE. They complete a really valuable little collection of monographs which we have pleasure in recommending to the perusal of all our readers.

THE facilities which are afforded to medical men for continuing their education, either in the general curriculum or in special courses, are very limited in Great Britain when compared with those which exist on the continent and in America. The centralisation of medical teaching and the treatment of an enormous number of cases under one roof and one State or charitable dispensation, as we find them in many foreign universities and hospitals, cannot be imitated in London. We have no central university and the hospitals are scattered, so that each appeals to its own supporters and considers primarily and rightly the comfort of the patients rather than the efficiency of the teaching. The systematic examination of the sick by a large class of students has not been introduced here as it has been in many Continental hospitals. Post-graduate teaching has, therefore, in London never been organised on a centralised system, although lectures and demonstrations have been given, generally on special subjects, at our hospitals and in our laboratories to medical men on payment of a small fee. Also, as stated in THE LANCET of May 28th, a combination of the London general hospitals has lately been formed by which a post-graduate student can attend any special part of the medical course at any hospital which he may choose instead of being limited as hitherto to one hospital. Now our experience leads us to believe that the post-graduate student wishes to attend one or more special departments or special hospitals rather than go through an extended curriculum, and in this matter he has a large choice in London already both of hospitals and teachers, although his clinical material cannot be brought to one institution. In fact, we think that under existing circumstances—circumstances, however, of very recent origin, the London post-graduate student can now obtain much of what he wants. But that others think differently is proved by

a scheme which has been submitted to us for the foundation of a Medical Graduates' College and Hospital on the American rather than the continental plan—that is to say, a college and hospital where qualified men alone are to be taught. We recognise the difficulties which must attend any attempt to combine teaching for students with post-graduate instruction. Of course, a college and hospital for post-graduates alone would be a more desirable method for giving the special instruction they desire, but in order to do this with efficiency provision must be made on a large scale. Lecture theatres, class-rooms, laboratories, a museum, and a library must have places in such a college, and such a hospital must attract by the wealth of its general and special clinical material and by the reputation of its teachers. Public consultations and advice to medical men on the diagnosis and treatment of their cases will require very careful management or they may possibly come to be regarded in a false light. It is hardly likely therefore that the scheme will receive much support from the teachers and governors of our general and principal special hospitals and in many instances an active opposition may be excited. The medical profession may subscribe liberally to the foundation and endowment of such an institution, but as the patients will not be admitted into the hospital for prolonged treatment, but rather for the purposes of teaching, it is questionable whether it will derive much support from the general public. If another JOHNS HOPKINS can be found to provide the necessary funds the scheme will be carried out easily, but unless some munificent benefactor arises we are doubtful whether the project, which has much to recommend it, can be brought to a successful issue.

THE Society of Medical Officers of Health for Scotland has issued a very useful "Memorandum with respect to the duties and sphere of the medical officer of health under the Infectious Disease (Notification) Act." By the new Scottish Public Health Act the Notification Act is made applicable throughout the whole of Scotland, and it seems that several instances of friction between the health officer and the medical attendant have recently occurred. The Memorandum points out that a good mutual understanding is essential for the efficient control of infectious disease; that as a general rule it is not the duty of the medical officer to review the practitioner's diagnosis; that the medical officer must start from the belief that certificates are given in good faith; that in respect of diagnosis the private practitioner has, as a rule, an advantage over the health officer in having had the case under observation and in knowing its history; that there are circumstances which justify the officer in reviewing a diagnosis in the interest of the public or of the patient, but that any such review should be made "with a clear apprehension of the delicacy of the undertaking, with due attention to professional etiquette, and, above all, in remembrance of the golden rule." When removal to hospital is in question the private practitioner may cordially concur in the procedure but may object to be an active party and the medical officer may have to step in. Small-pox and typhus fever are diseases which demand drastic suppression, but they occur so seldom nowadays that few practitioners have the opportunity of becoming familiar with them. Small-pox involves removal to hospital, revaccination of exposed persons, a report to the Local Government Board, and perhaps interference with employment. When all this routine has been discharged it is awkward for the private practitioner if it turns out next day that the case is not small-pox, and in his own interests a preliminary consultation would have been advisable. Even where gross carelessness or *mala fides* is suspected the patient should not be visited without prior intimation to the medical attendant. This is the statement of the Memorandum and is most clearly our opinion also. A local authority insisting on its officer making a practice of inquiring into diagnoses should be resisted. Where a different opinion is formed by the medical officer to that which has been expressed by the general practitioner, the information of the varying opinions should reach the patient or relatives through the practitioner, showing that neither medical man has lost confidence in the other because their minds do not happen in an individual case to jump alike. Where the original diagnosis is reversed in hospital the medical officer should take steps to secure "that the patient is not discharged in such a way as to suggest any reflection upon the action of the practitioner who certified the case." In issuing this sound Memorandum the Scottish Society of Medical Officers of Health has taken a wise step—a step, indeed, which is likely of itself to do much to attain the purpose of the Memorandum in the avoidance of friction and the promotion of public as well as professional welfare. It should be welcomed in Scotland as showing the anxiety of the Society that the public health medical service should maintain the best possible relationship with the great body of the profession. The hearty support which the profession gave to the health officers in their last year's strenuous and successful fight to obtain proper status and recognition in the new Public Health Act shows on the other side an equal friendliness which is well reciprocated in the document the contents of which we have here briefly indicated.

Annotations.

"Ne quid nimis."

DENTAL SURGERY AND HYGIENE.

DURING the International Congress of Hygiene and Demography recently held at Madrid an effort was made to establish a direct connexion between dental surgery and hygiene. In respect notably to the systematic surveillance and care of the teeth of children at school much is done but much more could be done to save the coming generation from one important cause of ill-health. Then, also, dental surgery is connected with special occupation diseases such as the necrosis prevalent among the match-makers. Speaking generally, the inferiority of the teeth of the present generation as compared with the teeth of previous generations is a very distressing symptom of the effects of modern life and the study of its causes involves at once questions of dental surgery and of hygiene. In view of these considerations it was felt that dentists should participate in the labours of the Congress of Hygiene. Some two years ago the Spanish Odontological

Society was established and this organisation determined to hold its first general assembly at Madrid at the same time as the Congress of Hygiene. But as there are many dental questions which do not come within the scope of hygiene the dentists met separately at the Royal Academy of Medicine. It was originally intended that when papers were to be read establishing a direct connexion between dental surgery and hygiene the dentists, who were all enrolled as members of the Congress of Hygiene, should go over in a body to the latter Congress. But at the last moment this was not found to be practicable, so the papers in question were read at the Academy of Medicine, with the understanding that they will be published in the official record of the Congress of Hygiene. There were altogether 121 members of what might be called the dental section of the Congress, including some foreign guests. Among the latter Dr. G. Cunningham of Cambridge read an interesting paper on the Teeth of School Children, insisting on a more systematic and wide-spread inspection. Dr. Bofill spoke on Antiseptic Dentifrices, demonstrating the inutility of the nostrums offered to the public. Dr. Aguilar read a paper on the measures to be taken to prevent the disease which is but too well known in the east of London under the popular denomination of "phossy jaw." He suggested that match-makers should not be allowed to work more than fifteen days consecutively and that then they should keep away for fifteen days. He likewise insisted that dental inspectors should constantly examine the mouths of such workers and remove all roots and decayed teeth. Dr. Boniquet of Barcelona spoke of the mouth as the unsuspected cause of many illnesses. For instance, he described eight cases of quinsy which he ascribed to bacteria which sometimes were able to work their way from the root of a bad tooth and passing through the connective tissues became the focus of an abscess situated at some distance. Dr. Hohr, a Spanish dental surgeon of German descent, read a paper on a microbe which he claims to have discovered and names the amœba buccalis. According to Dr. Hohr this microbe is in its normal condition when in the human mouth and there it does no harm; but when it reaches the intestines it gives rise to the amœba coli and may excite dysentery. The resisting power of the mucous membrane of the mouth is greater than that of the intestine. If this organism is in the mouth it will be conveyed to the intestine with the food or saliva and should the subject be predisposed dysentery will result. This assertion is based on the similarity of both microbes. Dr. Hohr therefore argued that if the teeth are kept in perfect order the amœba buccalis will not be found in the mouth; consequently it will not be conveyed to the intestines, and even if the subject is predisposed to dysentery he will escape. Thus dysentery may be prevented even where the predisposition exists by the active intervention of dental surgery. Since the conclusion of the Congress of Hygiene the Spanish Odontological Society have met again and have decided to hold another Dental Congress in two years' time at Barcelona. Foreign visitors will be welcomed at this gathering.

ALCOHOLIC STIMULANTS IN WORKHOUSES.

THE consumption of alcohol in workhouses is a subject of discussion as old as the larger question of which it forms a part. It is one which has for many years occupied the attention of local authorities, with the result, on the whole undoubtedly satisfactory, that the administration of stimulants, at one time regulated mainly by the free hand of custom, is now much less liberal. This statement, however, is only generally true and is qualified by notable exceptions. Eminent among the latter stands the county of Kent. From statistics quoted by a contemporary, the *British Temperance Advocate*, it appears that while the total bill for intoxicants used throughout the workhouses of England and Wales has decreased during the last twenty-two years from £82,555 to £32,911, or about £50,000, the sum expended in the workhouses of Kent has not diminished in proportion. On the contrary, it is noted that while only the three parishes of Eastry, Dover, and Medway show a consumption below the general workhouse average the remainder use an amount varying from 39 to as much as 693 per cent. above that average. Thus in the parish of Milton the sum expended in this way is 4*s.* 9½*d.* per head while in that of Cranbrook it rises to £1 7*s.* 4½*d.* Some allowance must naturally be made for divergence of opinion as to the necessity for alcohol in special cases and conditions, but even this concession will not enable us to explain differences in practice so marked as those above referred to. It is significant that the example of Kent is to a greater or less extent characteristic of the whole southern section of England. It would be of interest and no less, we believe, to the public advantage to have fuller information on this subject. In particular it should be profitable to inquire by whom, in what form, and under what conditions, alcohol is consumed in workhouses, and whether it has been found to exercise any influence advantageous or otherwise on its consumers. It certainly would be remarkable that in one parish the sum expended on alcohol should be ten times that in another or even more without producing some proof either favourable to its employment or the contrary. If none such can be found then the case for the free use of alcohol must be but a weak one and the question of its abatement must appeal to the ratepayer. For our own part while fully recognising the value of alcoholic stimulants in certain cases we are no advocates for their routine employment. The differences of opinion which appear to prevail among parish guardians with regard to this subject have not failed to attract the notice of the Local Government Board. We trust they will obtain at the hands of that body yet fuller investigation and such practical direction as they may require.

AN ABUSE OF THE EXAMINATION SYSTEM.

THE absurdity to which the system of examination may be reduced is well illustrated by the following incident. A practitioner thoroughly well qualified and holding also a diploma of public health applied recently for the post of medical officer of health in a northern borough. On appearing before the local council he was desired to answer certain questions bearing exclusively on the causation, development, and treatment of several infectious diseases. Naturally, and we maintain with much propriety, he declined to be thus examined on matters of a purely professional character by a lay committee and referred to his qualifications as affording satisfactory proof of his professional knowledge. It is gratifying to learn that this very rational view commended itself to more than one member of the extemporised "medical" board and that those members openly resented its action as a meddlesome impertinence. But the most singular part of the narrative remains to be told. It appears that the prime agent in this intelligent proceeding was himself a medical man though a member of the town council. We are not informed as to the result of this election. If in keeping with the procedure adopted success in the matter of selection could not be other than accidental. Any examination of candidates in the circumstances was not necessary, since if medical degrees are not sufficient to guarantee the most ordinary technicalities of our profession they have obviously no value. An examination conducted by an ordinary municipal body and under the conditions we have described could not, moreover, constitute a reliable test of knowledge

It is much to be regretted that the sorry part of principal actor in this comedy should have been allotted, as we are led to believe that it has been, to a member of the medical profession.

SIR JOSEPH FAYRER AND FALMOUTH.

WE desire to contradict a statement which appeared in THE LANCET of May 28th that Sir Joseph Fayrer has become a resident of Falmouth. Sir Joseph Fayrer writes: "Falmouth is a charming place and I occasionally spend a few days there, but I am, and intend to be, a resident of London as I have been for many years." We all hope that Sir Joseph Fayrer's residence in London may be still prolonged for many years. Our correspondent did not mean to imply that Sir Joseph Fayrer had left London to take up his permanent abode at Falmouth.

THE DOSAGE OF CHLOROFORM AND INHALERS.

THE early papers of Snow, which appeared in 1848 and which gave the results of a series of careful experiments made with narcotic vapours, have recently been recalled to the minds of those curious in such matters by the address given before the Society of Anæsthetists by Professor Waller. Snow dealt with the whole body, whereas Professor Waller dealt with nerve tissue, and of course Snow possessed neither the physiological training nor the perfected apparatus at the command of the later experimenter. Yet, as Professor Waller readily admitted, it is Snow's work which has suggested most of the later research and it is Snow's teaching which appears to gain fresh weight by modern experimental results. These papers deal with narcotics in general and not with chloroform and ether alone, and it is not too much to say that most of our knowledge of this group of medicines will be found in Snow's papers. It was a favourite illustration of his to place a candle in a bottle and diffuse chloroform in it. As the candle flickered it is recorded of him in Sir Benjamin W. Richardson's memoir that he said: "There, now, is all that occurs in narcotism; but to submit the candle to the action of the narcotic without extinguishing it altogether you must neither expose it to too much vapour all at once nor subject it to the vapour too long, and this is all you provide against in subjecting a man to the same influence." It was the firm belief in this view which induced Snow to proclaim the dangers of the "open method" then prominently before the world and sanctioned by the authority of Simpson and later of Syme. Snow's inhaler, designed to ensure a low percentage vapour of chloroform, valuable in its day, did not survive. To those accustomed to seeing chloroform poured unstintingly on a towel, on lint, or "on a dresser's woollen glove" *more* Professor Miller, Snow's teaching that 18 minims of chloroform absorbed by an individual of average size and weight will induce narcotism of the third or surgical degree, that 24 minims would plunge him into the fourth degree, and that 36 minims must arrest respiration, would receive scant attention. There can be no manner of doubt that Snow was right and that the advocates of the open method, when that is pursued according to Syme's directions by pouring unmeasured quantities of chloroform upon the cloth, are trenching upon dangerous ground. The safeguard to this method has always been the religious adhesion to the rule "watch the breathing." The strength of the vapour may cause holding of the breath; if the rule is kept the cloth is removed and the patient escapes the overdose. The rule is, however, not always kept and death results. But when Snow's principles are carried out this danger is absent, although there remains the peril arising from the gradual accumulation of chloroform in the blood. Clover's inhaler, among many, sought to obey Snow's injunctions, but its unwieldy size foredoomed it to oblivion. No objection of this kind arises in the case of Junker's inhaler. Its principle renders it capable of giving exact doses, but the earlier patterns were open to many practical objections—objections which the ingenuity of many anæsthetists has to a great extent removed. Among instrument-makers much credit is due to Mr. Krohne for his enthusiastic attempts to render Junker's inhaler as nearly as safe an instrument as any piece of mechanism can be made which stands between a human life and a lethal agent manipulated by the fallible hands of man. In another column we give illustrations of his more recent improvements. The instrument as figured is capable in the hands of a careful administrator of delivering a fraction of a minim of chloroform and so of maintaining a vapour of 1 per cent. or even less. The air is driven through the chloroform by means of a specially-contrived ball bellows which is so graduated that dosage of the anæsthetic can readily be effected and from ¼ to 1 minim driven through the delivery tube and presented to the patient. All the most advanced thinkers now recognise the paramount importance of accurate dosage in giving chloroform, and up to the present time no more accurate plan has been devised than that adopted in Krohne's modifications of Junker's inhaler.

A CHINESE HOSPITAL FOR PLAGUE AT HONG-KONG.

ON April 19th a special meeting of the Hong-Kong Sanitary Board was held to consider the advisability of permitting a Chinese Hospital for the reception of plague patients to be opened under the supervision of the sanitary board. The chair was occupied by the President (Dr. J. M. Atkinson, Principal Civil Medical Officer), and there were also present the Hon. R. D. Ormsby (Director of Public Works), Mr. E. W. Brewin (Acting Registrar-General), the Hon. F. H. May (Captain-Superintendent of Police), Mr. N. J. Ede, Dr. F. Clark (Medical Officer of Health), and Mr. C. Vivian Ladds (Colonial Veterinary Surgeon and Acting Secretary). The Captain-Superintendent of Police moved the following resolution: "That this board do appoint a branch hospital to the Tung Wah Hospital to be established on a site to be approved by the board as a place to which patients suffering from plague may be removed, provided always that such hospital be under the control of the Sanitary Board and under the supervision of one or more duly qualified European medical practitioners, and that the patient be allowed the option of being treated according to Western medical science or Chinese medical methods, and that the burial of those who die in the hospital and the removal of patients therefrom be conducted under regulations to be approved by the board and under the supervision of the doctors." Dr. Atkinson and Dr. Clark, the only medical members of the board, naturally opposed the resolution. According to the *Hong-Kong Weekly Press* of April 23rd Dr. Clark said he thought that in the interests of humanity it would be an evil if the Government of a colony such as this were to recognise in any way the so-called Chinese treatment of disease and especially the treatment of infectious disease. Dr. Atkinson said that in 1894 the mortality amongst the Chinese when the native doctors were allowed full scope was 93·4 per cent., and that in 1898 when the treatment was entirely in the hands of the Medical Department, it was 74 per cent. In the result the motion was carried. At a meeting of the board on April 21st it was announced that the Tung Wah Hospital Committee were willing to establish such a branch hospital and recommended that the Government should lend to them one-half of the cattle depôt at Kennedytown for the purpose. Dr. Atkinson said he considered that the sheds in question were most unsuitable and recommended

that mat sheds on the foreshore to the north of Kennedytown should be used instead. He, moreover, took the opportunity of repeating his protest against the establishment of a hospital where so-called Chinese practice is allowed, in which opinion he was supported by Dr. Clark. Dr. Atkinson's proposal as to the mat sheds was accepted and arrangements were forthwith made with a view to rendering them fit for occupation in the course of a week. In justice to Mr. F. H. May and his supporters on the board, it ought to be added that their action seems to be dictated by a desire to humour the prejudices of the Chinese population and not by any preference for Chinese medical methods rather than European ones.

THE MEDICAL, SURGICAL, AND HYGIENIC EXHIBITION.

THE success of this exhibition, which was held for the first time last year, has induced the organising committee to make it an annual event. It was decided this year to hold the exhibition earlier (last year it was in July) and the Queen's Hall, Langham-place, was devoted on Tuesday last to the exhibition of a very interesting assortment of foods, drugs, surgical appliances, &c. The exhibition closes to-day (Friday). We have considerable pressure on our space this week, but we hope next week to give a detailed description of the novelties shown and of other things of general interest to the profession. Suffice it now to say that the impression that this new departure is a useful one is confirmed and it is evidently appreciated by all those who are anxious to keep pace with the advances which are made in pharmacy and dietetics and in the design and construction of various apparatus and medical appliances.

DIVERS' PARALYSIS.

AN interesting case of this rare condition is reported by Dr. Frederick Taylor in a recent number of the *Clinical Journal*. The patient was under treatment in Guy's Hospital. He had already suffered three times from paralysis, the first time being in 1890. The history of the present attack was as follows:—He was working with five other men at a depth of 162 ft. and went down three times, remaining below twenty minutes each time; the ascent occupied six minutes. He felt quite well after these descents, but at the fourth descent a heavy piece of machinery slipped and jammed him up against an iron beam. He did not lose consciousness, but tried to economise the air at his disposal. After about five minutes he felt suffocated, had intense pain and noises in the head, and began to lose consciousness. It had been noticed on the lighter that the air-tube was not working and another diver went down and by following the line reached the patient and freed the air-tube so that he could be drawn up. On this occasion the ascent occupied only one minute. He felt very giddy and sick, but did not notice anything else amiss. On standing he noticed a feeling of numbness in his feet and this was present also in his arms both as to power and sensation. On admission to the hospital nine weeks afterwards there was marked loss of power in both his legs. There was no marked wasting of the muscles of the legs, though they were soft and flabby. The knee-jerks were normal. There was partial anæsthesia over the inner side of both legs from 3 in. above the knees to 3 in. above the ankles, the areas being roughly symmetrical. There was no loss of sensation to pain; the sensations to heat and cold were normal. The patient gave some interesting information as to the difficulties to which people engaged in this occupation are liable. He said that in his experience the paralysis only comes on after working at great depths and seems to be due to too sudden alteration of pressure. The disease is frequently due to divers having to be quickly hauled up owing to the air-tube being foul. Old men, he thought, are more liable to these attacks than younger ones and the character of the water and the duration of the stay are not so important as is the age of the diver. At a depth of 150 ft. there is not much inconvenience, but every two or three feet lower makes a difference. When diving at great depths the men always have a sense of fulness in the head, buzzing in the ears, and flashes of light before the eyes. On coming up there is often bleeding from the mouth, nose, and ears. The patient also referred to the condition known to the men as "bends"—that is, wrist-drop and foot-drop. This usually lasts from two hours to twenty-four hours, when it completely passes off unless it is an exceptionally bad attack. This condition was ascribed by the patient to the bands applied round the ankles and wrists to make the diving-suit watertight. Dr. Taylor's remarks on the case, together with the literature he quotes, form an article well worthy of perusal.

MR. H. K. HUNTER'S CASE.

WE are authorised to state that the draft of the case appealing from the conviction of Mr. Hunter for calling himself "Physician" has been settled by Mr. Haldane, Q.C., M.P. (who will argue it on behalf of the Society of Apothecaries), and is now before Mr. Muir Mackenzie to settle on behalf of the General Medical Council. As soon as he has done this it will be set down for argument before the Queen's Bench Division and an application will probably be made for a day to be fixed for the hearing. Under any circumstances the case is expected to be disposed of before the long vacation. We take this opportunity of explaining that the General Medical Council issued separate summonses against Mr. Hunter, one for calling himself a physician and another for calling himself a surgeon, but did not proceed with the latter. Mr. Hunter called himself "Physician and Surgeon."

PREVENTION OF PHTHISIS BY SANITARY MEASURES.

WE have recently received the "Ninth Report of the Metropolitan Board of Water-supply and Sewage (Sydney, New South Wales)." It comprises the period from July 1st, 1896, to June 30th, 1897, and contains many interesting papers. One that is well worthy of attention is by Dr. T. M. Kendall and is headed "Mortality from Phthisis as affected by the Operations of the Board in the Metropolis of Sydney, N.S.W." The writer gives a short review of the views hitherto held on this subject and also the results arrived at by Dr. Sims Woodhead after his experiments on milk and meat from tuberculous animals. He also emphasises the frequently expressed opinion that phthisis is a preventable disease and that attention to general hygienic improvements such as good ventilation, plenty of fresh air, ample light, dry houses, good drainage, and avoidance of overcrowding tends to check the development of tuberculosis. Tables are then given showing the reduction in the death-rates from phthisis in the various districts before and after the construction of sewers. These are very remarkable. Several places are mentioned; thus, since the construction of the improved main sewers in the city of Sydney the death-rate from phthisis has decreased from 13·5 per 10,000 of the population to 9·8. An examination of the nature of the soils of the city and suburbs of Sydney shows that the greatest mortality from phthisis occurred on the clay shale soils, although in proportion to the density of population it was greatest on the water-logged sandy soils and on the sandy clay soils. Where the land was low-lying and with little slope the mortality was greater than on the high, sloping land notwithstanding the nature of the soil. Upon pervious soils the phthisis death-rate was 30·9 per 10,000 of the population, while upon

retentive or impervious soils it reached 50. The death-rate from this disease was highest upon those soils into the composition of which clay chiefly enters. Dr. Kendall draws the following conclusions from this inquiry: "1. That there is an undoubted relation between the incidence of phthisis and dampness of the soil. 2. That as the phthisis death-rate has been reduced in those districts provided with proper sewerage since the laying of the main sewers, the laying of the main sewers has exercised an influence over the phthisis death-rate through drying of the soil. 3. That in view of this success which has attended the board's operations up to the present time the extension of these operations will prove of great benefit in coping with the disease called phthisis."

THE COMPLIMENTARY DINNER TO DR. W. S. PLAYFAIR: A POSTPONEMENT.

IN consequence of the death of Lord Playfair the complimentary dinner to be given to Dr. W. S. Playfair on Saturday, June 4th, will be postponed.

THE ROYAL COLLEGE OF SURGEONS OF ENGLAND: ELECTION TO THE COUNCIL.

GENTLEMEN who intend to offer themselves as candidates for the Council of the Royal College of Surgeons of England are reminded that they must give formal notice to the Secretary of the College not later than Monday, June 13th. Blank forms upon which this notice may be given can be obtained from the Secretary at the College. The elections will take place on July 7th.

A PUBLIC HEALTH CONGRESS IN IRELAND.

FROM Aug. 18th to 23rd, 1898, the Royal Institute of Public Health (Dublin Branch) will hold a Congress of Public Health in the metropolis of Ireland. It will be under the patronage of H.E. the Lord Lieutenant of Ireland, the Right Hon. the Lord Mayor of Dublin, and Sir Charles Cameron, the last of whom will act as President of the Congress. The list of vice-presidents includes the names of the most distinguished members of the three learned professions in Ireland and the general committee is a powerful one. The Section of Preventive Medicine will be presided over by Dr. Grimshaw, C.B., Registrar-General; Chemistry and Climatology by Dr. John W. Moore; Engineering and Building Construction by Sir Thomas N. Deane; and the Parliamentary and Municipal Section by the Right Hon. Joseph M. Meade, P.C., LL.D. Conferences of army and navy medical officers, veterinarians, medical officers of health, and sanitary inspectors will respectively be presided over by Brigade-Surgeon-Lieutenant-Colonel Corbett, D.S.O.; Matthew Hedley, chief veterinary inspector of the Privy Council; Mr. Thomas J. Stafford, Commissioner, Local Government Board; and Mr. Conway Scott, executive sanitary officer, Belfast. Important as the Congress is likely to prove, the Health Exhibition which is to be held in connexion with it may be of even greater importance. The preliminary list of sections, embracing practically every department of sanitary science, begins with Physiology and ends with Toys. That work may be tempered with pleasure the Lord Mayor of Dublin has arranged to give a ball during the week, the High Sheriff a luncheon, and the Corinthian Club a dramatic entertainment; while Sir Henry Cochrane and Sir Christopher Nixon will be the hosts at garden parties. Various excursions have also been arranged and there is abundant evidence that the leading citizens are anxious to maintain Dublin's reputation as a city of hospitality. The Dublin Horse Show will commence on the closing day of the Congress and the Health Exhibition will be kept open while this is in progress. Full information regarding the Congress can be obtained by applying to the Public Health Office, Dublin.

THE POSSESSION OF DISEASED MEAT.

IN our issue of March 19th, 1898, we made some remarks upon the case of Mr. Albert Rendell, a draper at Bradford, who was convicted and fined by the stipendiary magistrate for having in his private larder the carcass of a sheep or lamb which was said to be unfit for human food. There was no exposure for sale, but the meat was intended for the food of the defendant, his family, and employés. The stipendiary relying on the case of Mallinson *v.* Carr, held that exposure for sale was not necessary for an offence and fined the defendant, but at the same time stated a case for a higher court. On May 26th the appeal was heard in the Court of Queen's Bench before Mr. Justice Wills and Mr. Justice Channell. They reversed the conviction in the court below on the ground that under the circumstances stated the magistrate had no ground for his decision under the Act. It seems to us that this judgment opens a way for very shady practices. Take the case of a butcher, for instance, who was anxious to get rid of unsaleable scraps and offal. As far as we can see he might feed his own family or his servants upon such offal without let or hindrance from the law. As we said before no one would take the trouble to dress a carcass and hang it in his larder unless there was an intention to use it for food, and to feed people upon diseased meat is neither right nor, to put it upon the lowest grounds, politic from a monetary point of view. We would even go further and say that it is more reprehensible to conceal diseased meat intended for human food than to expose the same for sale, since in the latter case it is obviously more likely to be seized and condemned. The heads of houses ought to be answerable at law for the intent to feed others under their roofs or in their employ with diseased or tainted articles of diet.

CHRONIC CONSTIPATION IN CHILDREN.

THE *Journal de Clinique et de Thérapeutique Infantiles* of May 19th, 1898, quotes a paper by Dr. L. Furst on the Treatment of Chronic Constipation in Children. The writer assigns as the causes of this condition defective peristalsis, insufficient secretion by the intestinal glands, in older children a sedentary habit with lack of physical exercise, and also in some others a feebleness in the action of the sympathetic dependent on excessive use of the brain. One important consequence, he maintains, is decomposition of the retained fæces, which in its turn he holds accountable for convulsive attacks, neurasthenia, insomnia, and other nerve disorders probably associated with absorption of the products of decomposition. Passing to treatment he places much faith in massage of the abdomen aided by small doses of a saline water repeated twice or three times daily. He recognises, also, the value of enemata and advises their use three or four times a week, the solution used being in this case also a weak saline one. The employment of enemata presupposes, of course, an absence of inflammation in the bowel and an uninjured mucous surface. By such means persevered in for some weeks or months Dr. Furst maintains that the difficulties both as to secretion and peristaltic action can best be overcome. His views with regard to the value of careful massage, diet, exercise, and enemata will find general acceptance. His advocacy of the repeated use of salines is more open to question, since the ultimate effect of this process must be to deplete and thus to weaken the bowel in a greater or less degree. The substitution of mild cholagogues with such laxatives—senna, cascara, &c.—as influence intestinal secretion and at the same time stimulate peristalsis appears to us a preferable method.

There is a stage in early childhood at which active exercise is not possible and such measures as those just described are then most useful. After that period, however, an active habit and a suitable diet will in the case of most children prove of greater value than the use of more artificial remedies.

THE CORONERS' SOCIETY.

THE annual dinner of the Coroners' Society of England and Wales was held at the Holborn Restaurant, London, on Thursday, May 26th. Some 50 of Her Majesty's coroners and their guests were present, the chair being occupied by the President, Mr. George F. Roumieu, J.P., coroner for West Surrey. After the usual loyal greeting of "The Queen and the Royal Family" the toast of "The Coroners' Society" was gracefully proposed by Mr. H. G. Croly, ex-President of the Royal College of Surgeons in Ireland, and responded to by Mr. Roumieu, the President. The Coroners' Society was founded in 1846 mainly by Mr. Payne, coroner for the City of London, and so has passed its jubilee, whilst the fact mentioned by Mr. Roumieu that of the 341 coroners of England and Wales 253 are members of the society clearly shows that coroners, medical and legal, recognise the value of solidarity and of the common bond of friendship which the society affords. We counsel the odd 88 promptly to add their names to the list of members. The toast of "The Visitors," proposed by the President, was replied to by Dr. Dawson Williams, Mr. Thomas Wakley, Jun., Mr. Arthur Hacker, A.R.A., and Mr. Marks, clerk of the Peace for the county of Bedford. We may be pardoned, we trust, for recording that the presence among the guests of the society of his grandson was the occasion of very pleasant proof (at least to us) that the name of Thomas Wakley, coroner for West Middlesex, and the work which he did to improve the status of the coroner's office and the coroner's court and to secure recognition of, and remuneration for, medical witnesses are by no means forgotten by the gentlemen who now, some sixty years later, discharge the responsible and onerous duties of Her Majesty's coroners. Moreover, we were glad to observe that the coroners are still recognised as "the people's judges." Mr. Roumieu strongly insisted that people, especially those in the lower ranks of life, were remarkably dependent on coroners for protection. Our readers will remember that the Founder of THE LANCET always maintained that coroners were "the people's judges." In the "Life and Times of Thomas Wakley" (p. 382) occurs the passage: "He [Thomas Wakley] pointed out that the coroner was the *people's* judge, the only judge whom the *people* had the power to appoint, while the office had been specially instituted for the protection of the *people*." The toast of "The Officers of the Society," proposed by the President and responded to by the secretary, Mr. A. Braxton Hicks, and the treasurer, Mr. Arthur Langham, brought the proceedings of a very pleasant evening to a close. We may add that the President-elect of the Society is Mr. J. C. Malcolm, coroner for the City of Leeds.

DEPILATION.

As is well known the application of chemical depilatories to the skin for the removal of superfluous hairs is not a very comfortable operation and may be attended with serious injury to the skin, for these compounds usually contain powerfully caustic components. There are a great many proprietary depilatories, consisting for the most part of sulphides of sodium, potassium, calcium, barium, or even arsenic, but they are not, as a rule, satisfactory. There are Oriental depilatories, Chinese depilatories, Turkish depilatories, all more or less of the same composition. Depilation, indeed, is a very ancient practice. Even the removal of superfluous hairs by means of electrolysis is a long and tedious process, and in reality amounts to the production of corrosive alkali in the follicle. We have, therefore, we fear, little consolation to offer to several correspondents who have recently written to us upon this subject. They should consult their medical attendants and beware of widely advertised nostrums. One states that he has an abundant growth of hair on his face and neck which he has attempted to remove in consequence of the representations of his employers, who forbid their employés to grow beards. He has a particularly tender and sensitive skin which quite prevents him from employing the razor with that frequency which the rapid growth of the hair would demand. In such a case the only plan is to allow the beard to grow and to convince the employers of the absurdity of their views and the extreme unreasonableness of their request. Dictation of this sort on the part of employers is pure tyranny, and no right-minded person would make such an idiotic insistence. Nevertheless, it prevails in a great number of respectable houses of business and the employés are threatened with discharge unless they submit.

THE DEATH OF LORD PLAYFAIR.

CHEMISTRY has lost a practical man and the political world an all-round and valuable consultant by the death of Lord Playfair. Hugh Lyon Playfair was the son of a medical man, George Playfair, Inspector-General of Hospitals for the Presidency of Bengal. He was born in the year 1819 at Meerut, whence later he was sent to England to school. His preliminary education finished, after a short stay at St. Andrews he eventually entered Glasgow University, then known as the Andersonian University. He was led, however, by indifferent health to return to India. After a fortunate restoration he came back and joined his old Professor at Glasgow, Dr. Graham, who had been appointed lecturer on Chemistry to University College, London. With the advice of Dr. Graham, Lyon Playfair next studied organic chemistry under the great Liebig and finally turned his chemical knowledge to account in the management of a calico-print works. Playfair did not stop long in a subordinate position, for in 1843 he became Professor of Chemistry to the Royal Institution at Manchester, now the Victoria University. Thirteen years later he was appointed Professor of Chemistry in the University of Edinburgh, where he had for a time the Prince of Wales and Prince Alfred as pupils. In the meantime he was engaged in considerable public work. He served most usefully on the Royal Commission instituted by Sir Robert Peel which was appointed to inquire into the sanitary conditions of the large and populous factory districts of the north. Other inquiries in which he faithfully and fruitfully worked were in connexion with the reorganisation of the Civil Service, the condition of the fisheries on the Scottish coast, the rinderpest inquiry, and the suitability of British coal for naval purposes, while he was also a special commissioner in charge of the Department of Juries in the Great Exhibitions of 1851 and 1862. In 1862 Playfair entered Parliament as the representative for the Universities of Edinburgh and Saint Andrews, and during his retention of this seat for seventeen years he occupied the position at one time of Postmaster-General under Mr. Gladstone and at another that of Chairman of Ways and Means in the "Eighty" Parliament. Despite the demands of such a publicly active life Lord Playfair found time to take up his pen and to write on literary, scientific, and financial topics. He was one of the heartiest supporters of the University Extension Scheme, and, indeed, invariably associated himself

with movements undertaken in the public interest. Lord Playfair died suddenly at his residence in Onslow-gardens on May 29th; the funeral is announced to take place to-day (Saturday).

CAN COMPANIES CARRY ON MEDICAL PRACTICE?

IT would seem incredible to the uninitiated that it should be possible for totally unqualified persons in the exercise of medical practice to be protected by the Companies Act. But such is the case. The subject was brought before the General Medical Council by a member *in camerâ*, who pointed out the valuable opportunity afforded by the occasion of the Companies Act Amendment Bill for providing a remedy for such a scandal. The Council afterwards gave leave for the motion on the subject passed *in camerâ* to be placed on the minutes. It is as follows:—

"That the President, Mr. Tomes, and Mr. Horsley be a committee to take such steps as they deem most effective to induce the Government to insert a clause in the Companies Act Amendment Bill, now before Parliament, with the object of preventing the registration of companies to carry on medical, surgical and dental practice."

The General Medical Council will do good service if it succeeds in this matter.

EXAMINERS OF DEFECTIVE CHILDREN UNDER THE LONDON SCHOOL BOARD.

THE appointments under the London School Board as "medical practitioner to take charge of the work in connexion with the examination of defective children and of children alleged to be defective" have been conferred upon Mr. G. E. Shuttleworth, B.A. Lond., M.D. Heidelb., and Mrs. F. M. Dickinson Berry, M.D. Lond. Dr. Shuttleworth has throughout his professional career been intimately associated with the study of "defective" children, having been assistant medical officer at the Earlswood Asylum and subsequently for twenty-three years resident medical superintendent of the Royal Albert Asylum for Idiots and Imbeciles of the Northern Counties, Lancaster. He has also been connected with various voluntary institutions established for the investigation of the mental and physical condition of school children in connexion with their education, has furnished important evidence on the subject in Government inquiries, and is also the author of several writings well known to the profession. Mrs. Dickinson Berry, the wife of Mr. James Berry, F.R.C.S., has held various appointments at hospitals for children and women and is an M.D. and B.S. (with honours) of London University.

MODERN SANITATION AND THE ANCIENT HINDOO RELIGION.

ON March 25th Surgeon-Lieutenant-Colonel W. G. King delivered at Madras University a long and able address to the newly admitted graduates in law, medicine, engineering, and arts. After appropriate exhortations to the members of each of the several faculties he urged the graduates as a body to remember that it was to them as educated fellow-countrymen that the people looked for guidance in the midst of doubts and perplexities as to whether Western civilisation was not incompatible with native religious opinions and customs. For instance, the advance of sanitary reform is almost entirely dependent upon the ability of the better-informed classes to influence the uneducated populace. "Those of you who have studied the learned shastras of your forefathers," he said, "must have found ample room for opinion that not only is modern sanitation compatible with caste, but that caste itself, although allied with religious observances, is a magnificent and elaborate system of sanitation. ..... But in the absence of the knowledge of Sanskrit in which these rules were conveyed, tradition, which has been the method of transmission from generation to generation, has led to no little distortion of the original dicta." For instance, the laws of Manu teem with minute directions as to the collection, retention, and withdrawal of water in a pure state, but unfortunately the perversion of the sense of the original shastras has led to wholesale pollution of rivers. In seeking to provide a public water-supply free from any form of animal contamination the various local authorities do not introduce any innovation contrary to caste requirements and act in strict accordance with the spirit of the shastras, and the same may be said with respect to the measures of segregation and disinfection during the present prevalence of plague, which, however, have been resisted on the assumption that they were inimical to caste. In fact, if there has been anything taught by caste it is the necessity for segregation as an aid against the spread of disease, the conditions which determine the duration and nature of the segregation being clearly shown by the laws of Manu and the edicts of Vishnu. On this occasion, for the first time in Madras University, an Indian lady obtained a degree in arts.

THE annual general meeting of the St. George's Hospital Graphic Society will be held at the hospital on Tuesday, June 7th, at 2.30 P.M. By permission of the Board of Governors the annual exhibition, which is strictly limited to the work of members, will be held in the board-room of the hospital. The exhibition will be opened immediately after the meeting and will remain open until the end of the week.

THE foundation-stone of the new building of the North London or University College Hospital, now being erected through the generosity of Sir J. Blundell Maple, Bart., M.P., will be laid by H.R.H. the Prince of Wales, K.G., Vice-Patron of the hospital, on Tuesday, June 21st. Visitors are requested to be in their places by 3.15 P.M.

THE German Emperor has conferred the Royal Prussian Order *Pour le Mérite*, for Science and Art, upon Sir William H. Flower, K.C.B., F.R.C.S. Eng., F.R.S., Director of the Natural History Department of the British Museum and President of the Zoological Society of London.

THE Library of the Royal College of Surgeons of England will be closed on Tuesday, Wednesday, and Thursday of next week (June 7th to 9th) as a conversazione of the Metropolitan Branch of the British Medical Association is to be held in the College building.

H.R.H. THE DUCHESS OF YORK has announced her intention to pay a private visit shortly to the Paddington Children's Hospital for the purpose of naming the new wards opened by the late Duchess of Teck.

THE foundation-stone of the new chapel of the City of London Asylum at Stone, near Dartford, is to be laid on June 18th by the Lord Mayor, who will be accompanied by the Sheriffs of London.

THE Freedom of the city of Edinburgh is to be conferred on Lord Lister on June 15th. Viscount Wolseley is to be similarly honoured on the same day.

THE second annual conversazione of the Royal Society will be held on Wednesday next, June 8th, at Burlington House.

THE IRISH LOCAL GOVERNMENT BILL.

III.[1]

A CORRESPONDENT, well acquainted with the facts of the case, writes to us as follows: "The Local Government Bill will seriously affect our brethren in Ireland. The control of the lunatic asylums, Poor-law relief system, sanitary matters, and the county infirmaries will henceforth be dealt with by county and district councils elected on a popular franchise. With the exception of the lunatic asylums no safeguards are provided in the Bill for the protection of the officers connected with the dispensaries and infirmaries. Past experience does not lead us to believe that popularly elected bodies will deal economically with such matters. With a few exceptions superannuation has been either withheld or granted with a niggardly hand. From time to time attempts have been made to place this question on a more satisfactory footing. ..... The 13th Section transfers the election of coroners from the present electorate to the county council. We think this change beneficial, as the turmoil of a coroner's election is neither dignified nor likely to attract suitable candidates. A suggestion has been put forward that the resident magistrate should in future become coroner for the district. Though this suggestion has emanated from a body deserving of all respect we cannot think it worthy of being seriously discussed. Hitherto the Board of Control has been practically autocratic with regard to lunatic asylums. The needs of the country have not been properly attended to and in many counties a deficiency of accommodation has arisen which amounts to a scandal. Idiots and semi-harmless lunatics are huddled together in the workhouses without suitable facilities for treatment or supervision. The press has frequently drawn attention to this lamentable state of affairs. Questions have been asked in the House of Commons and the Local Government Board inspectors have used their limited powers without any salutary change having been effected. If a centralised permanent board with ample powers at its disposal has failed to effect any improvement the future look-out is not a bright one. ..... It remains to be seen how far district councils will meet the necessities of increased expenditure and we fear any amelioration in the condition of Poor-law medical officers is likely to be delayed to the Greek Kalends. The admirable work done by the county infirmaries in Ireland is well known. Some of these institutions possess considerable endowments and all of the buildings were constructed by private donations and subscriptions. Their maintenance and the salaries of their officers are mainly supplied by Grand Jury presentments. In future these presentments will depend upon the will of the county councillors as they are not 'imperative presentments.' The Association of Infirmary Surgeons has drafted a scheme which is at present under the consideration of the Chief Secretary for Ireland. The object of this scheme is to form boards of management for the various infirmaries composed of representatives from the councils and from the general body of subscribers. This would remove the objection of the money-granting body being unrepresented on the spending body. Provision is also being made for extending the privilege of recommending patients for admission to clergymen of all denominations, Poor-law medical officers, and county and district councillors; also for the inspection of the infirmaries and the annual auditing of the accounts." Our correspondent's criticisms and suggestions are worthy of careful consideration and possess elements of real practical value. We need hardly point out, however, that the new councils will have these matters in their own hands and that the results will be good or bad simply in proportion to the wisdom which these bodies may possess and exercise. Under a democratic administration there is no remedy against the abuses of a system except to endeavour to select suitable representatives and to take care that they are kept fully informed of all the facts and necessities of the case.

A rapid survey will now be taken of those provisions of the new Bill which possess a direct bearing on medical and public health questions. Clause 6 of Part I. contains the provision: "The business of the guardians as local authority under the Diseases of Animals Act, 1894, and the Destructive Insects Act, 1877, shall be transferred to the council of each county." This touches a very important point in Irish local government, which has not received the attention to which it is entitled—viz., the organisation of public health and sanitary administration. It cannot be said that at present this is at all satisfactory. The death-rate in Ireland is, in general, much too high, and though poverty, distress, early marriages, and Celtic fecundity are partly accountable for this, there remains something to be attributed to imperfect sanitary administration. The Poor-law dispensary medical officers are also the health officers for their various districts, but in the appointment of these officers no security is taken that candidates shall possess the requisite sanitary knowledge, and further, they are isolated units, scattered over the face of the country, without organisation or capability of conjoint action. What would seem to be required would be, first, that candidates for Poor-law appointments shall possess a diploma in public health, and secondly, that each county council should have an officer of health who would give his entire time to this work and who would exercise supervision and control over dispensary medical officers in their functions as sanitary officers. The Royal College of Surgeons in Ireland in its memorial to the Chief Secretary states that it "considers that it should not be open to guardians or dispensary committees to place in charge of the sick poor persons who may be entirely inexperienced and whose competency for the special duties confided to them may be entirely unguaranteed. The College, therefore, submits that all candidates for such appointments should be subjected to a previous competitive examination in which a knowledge of their special duty as medical officers, as sanitary officers, and as public vaccinators could be verified." There is much to be said in favour of these recommendations and there is little doubt that their adoption would tend to improve the status and efficiency of dispensary medical officers in Ireland. In any case some means should be taken of securing an adequate amount of sanitary knowledge on the part of candidates for these appointments. The simplest means of attaining this end would be to make a diploma in public health obligatory. This would involve no real hardship and would at least tend in the direction of increased efficiency. Not less important is the second point, viz., that sanitary administration in Ireland requires more organisation and cohesion. It is not to be reasonably expected that dispensary medical officers, scattered over a wide area of country and too often overwhelmed with duties other than those pertaining to them as health officers, should pay adequate attention to sanitary matters. What is wanted is some superior officer, with adequate special knowledge and sufficient time, who should exercise a general control over public health questions within the area under his supervision. This system now prevails in the large towns, and machinery will be necessary to secure some similar methods in rural districts. It would not be unreasonable to expect every county council to have its own officer of health, and there can be little doubt that the money thus expended would be fully remunerative.

Clause 9 of Part I. runs as follows: "It shall be the duty of the council of every county to provide and maintain sufficient accommodation for the lunatic poor in that county in accordance with the Lunatic Asylum Acts, and if it appears to the Lord Lieutenant that any council fail to perform that duty, he may order that council to remedy that failure within the time and in the manner (if any) specified in the order. The duties of the council under this section shall be exercised through a committee appointed by them, and, if the Lord Lieutenant fix a number, of the number so fixed; and out of that committee a number not exceeding one-fourth may be persons not members of the council. There shall be transferred to the council, acting through that committee, the business of the governors and directors of the asylum under the Lunatic Asylum Acts; and the committee, subject to the general control of the council as regards finance, may act without their acts being confirmed by the council. ..... The county council through the said committee shall properly manage and maintain every lunatic asylum for their county; and subject to the provisions of this Act, may appoint and remove the officers of the asylum and regulate the expenditure; and the powers, under the Lunatic Asylums Acts, of the Lord Lieutenant or the inspectors of lunatics, as to those matters, and as to land and buildings, and as to the appointment of governors or directors, shall cease, and

[1] Nos. I. and II. were published in THE LANCET of May 14th and 21st, 1898, respectively.

also the Board of Control for lunatic asylums shall be abolished." It is further provided that the Lord Lieutenant must approve of the regulations adopted by these committees with regard to the management of lunatics, and also that where a district for a lunatic asylum comprises two or more counties the committee for the asylum shall be a joint committee of the councils of the counties with a representation of each council proportionate to the respective expenditures. These regulations regarding asylums do not call for any exposition, and on the whole they will be generally approved. As already remarked, the result of asylum management in the future will be a crucial test of the success of the new *régime*. The asylum boards of the past have been nominated by the Lord Lieutenant for the time being, they have been composed of men of rank and high social or professional status, and there can be no doubt that their duties have been in the main fairly well discharged. Clause 56 gives the county councils acting through their asylums committees power to appoint the officers of the asylum, and it is stipulated that "every resident medical superintendent shall be a legally qualified medical practitioner of not less than seven years' standing, and shall have had experience in the treatment of the insane, and every assistant medical officer shall be a legally qualified medical practitioner." Clause 50 provides that "The council for a county may, either by the exercise of their powers under this Act, or by taking over any workhouse for the purpose, provide an auxiliary lunatic asylum for the reception of chronic lunatics who, not being dangerous to themselves or others, are certified by the resident medical superintendent of an asylum of such council not to require special care and treatment in a fully equipped lunatic asylum, and any such auxiliary lunatic asylum shall either be a separate asylum within the meaning of the Lunatic Asylum Acts, or if the Lord Lieutenant so directs a department of such an asylum."

Clause 13 runs as follows: "A coroner for a county shall not be elected as heretofore, and on a vacancy in the office of a coroner for a county, the county council shall within one month after the vacancy, or such further time not exceeding three months after the vacancy as the Lord Chancellor may allow, appoint a qualified person to the office, and if the county is divided into coroners' districts, assign him a district. The county council may alter the coroners' districts and the enactments respecting those districts shall apply as if the county council were the justices assembled in special sessions for that purpose under the direction of the Lord Lieutenant, and the power of the Lord Lieutenant and justices in relation to coroners' districts shall cease. The Lord Chancellor may, if he thinks fit, remove any coroner for a county from his office for inability or misbehaviour in the discharge of his duty. The writ *de coronatore eligendo* shall cease to be issued, but neither the abolition of that writ nor anything else in this section shall alter the jurisdiction of the Lord Chancellor or the High Court or a judge of assize, in relation to the removal of a coroner otherwise than in a manner provided by this Act, or in relation to ordering a new election of a coroner. A person who is a coroner for a county shall not be qualified to be elected or to be a county or district councillor in that county." These provisions are all sufficiently clear and do not call for any special comment. The change involved in the mode of election of coroner will probably be found advantageous.

Clause 18 provides amongst other things that "for every rural sanitary district there shall be a rural district council, whose district shall be called a rural district." Clause 20 enacts that "in a rural district the district councillor for every district electoral division shall be the guardian for that division." Clause 24 provides that "there shall be transferred to the guardians the business of every committee of management of a dispensary district within their union, and these committees shall cease to be appointed." Clause 25 provides that "there shall be transferred to the district council of every rural district the business of the rural sanitary authority in the district. ..... Rural district councils shall also have such powers and duties of urban sanitary authorities under the Public Health Acts, or any other Act, and such provisions of any of those Acts relating to urban districts shall apply to rural districts, as the Local Government Board by general order direct; and every such order shall be forthwith laid before Parliament." These provisions are sufficiently self-explanatory and their importance is evident. As has been already insisted on, the administration of the sanitary laws in Ireland has not been satisfactory. There is much room for greater thoroughness and stringency in this department, but the present Bill only transfers existing powers to the new elective councils and does not provide any additional machinery. It will rest with the county and district councils themselves to effect a more thorough application of the Public Health Acts, under which the local authorities possess such ample and far-reaching powers. Ireland is a country in which the vigorous application of sanitary laws is peculiarly necessary. There is much poverty, and the tendency of the people is not in the direction of thoroughgoing hygiene. The more need, then, why the excellent public health laws which the country possesses shall be patiently and vigorously enforced.

The financial arrangements under the Bill have already been sufficiently dealt with. It remains only to notice some of these provisions which have a special bearing on medical questions. Clause 42 provides that "the Lord Lieutenant shall cause to be paid in respect of every local financial year, out of the Local Taxation (Ireland) Account, at such times and by such payments as he may direct, ... one-half of the salaries of the medical officers of the workhouses and dispensaries, ... one-half of the salary of one trained nurse in each workhouse who is actually employed and possesses the prescribed qualifications, ... and also one-half of the cost of such medicines and medical and surgical appliances as are provided in accordance with the prescribed conditions, ... and to each county council on behalf of every rural district in the county, and to each urban district council, one-half of the salaries approved by the Local Government Board of sanitary officers in respect of their duties under the district council, and t each county council who satisfy the Lord-Lieutenant that they have fulfilled their duty with respect to accommodation and buildings for lunatic poor, and that their lunatic asylum is well managed and in good order and condition, and the lunatics therein properly maintained and cared for, sums at the rate for each lunatic in the asylum for whom the net charge upon the council (after deducting any amount received by them for his maintenance from any source other than poor-rate) is equal to or exceeds 4*s.* a week throughout the period of maintenance for which the sum is calculated, of one-half of such net charge, or 4*s.* a week, whichever is least." It is to be noted that these financial concessions, which seem on the whole liberal and well adjusted, are made in consideration of the termination of certain grants hitherto made out of the Exchequer in aid of the rates.

Part IV., dealing with boundaries, contains some provisions which will affect the work of the medical profession. It is provided that the existing boundaries of counties and unions shall be as far as possible preserved, that a union shall not in any case be divided between more than two counties, that a county district shall be situate wholly in one county, and that where a union is divided between two counties each divided part, so far as it is not contained in an urban sanitary district, shall be a separate rural sanitary district.

Clause 51 provides that "where a rural district is coextensive with a union, the district councillors shall, when exercising the duties of guardians, continue to be a board of guardians under their existing name." This is a small matter, but the advantage of calling the same body of men "district councillors" when assembled together for one set of duties and "guardians" when assembled for another is not altogether evident. Clause 55 contains the following important provision: "When any part of the salary of an officer of a county council is paid out of money provided by Parliament, or from the Local Taxation (Ireland) Account, he shall not be appointed or removed, nor shall his salary be fixed or altered without the concurrence of the Local Government Board." Clause 57 provides that "the additional salary granted to the medical officer of a dispensary district by reason of his being medical officer of health of any sanitary district shall be paid by the council of the latter district."

The memorial of the Royal College of Surgeons in Ireland already referred to makes a strong appeal that adequate provision should be made to enable poor-law medical officers to retire upon a pension as of right, if incapacitated from duty by ill-health or upon abolition of their offices, or after completion of the period of service required from Civil servants. The memorial further points out that the discretion at present vested in guardians with regard to this question has led to numerous cases of serious hardship. There can be little question of the reasonableness and justice of this contention.

The dispensary medical officer in Ireland is in general overworked and underpaid. It is nothing short of a scandal that he should be compelled to go on working in many cases when quite broken in health or incapacitated by reason of the infirmities of old age. A suitably adjusted system of superannuation would be not merely an act of justice to a hard-worked class of meritorious public servants, but clearly to the advantage of the public. Work such as that devolving upon dispensary medical officers can only be discharged efficiently by men in good health and not too far advanced in years.

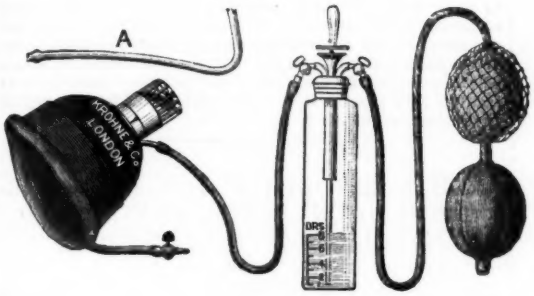
The next and concluding article will complete our examination of the Bill.

RECENT IMPROVEMENTS IN REGULATING CHLOROFORM INHALERS.

Definite Dosage.

BASING all their efforts upon the principles enunciated by Snow, that 18 minims of chloroform contained in the circulation of an average adult sufficed to produce complete anæsthesia, Messrs. Krohne and Sesemann have improved Dr. Junker's inhaler and made various alterations in its construction of which the following is an account. Fig. 1 represents Messrs. Krohne and Sesemann's improved Junker's Inhaler fitted with the feather respiration indicator attached to a vulcanite face-piece, with the Dudley Buxton funnel for filling and tube for blowing chloroform vapour into the mouth or nostril. The vulcanite face-piece can be replaced by a flannel cap or piece of domette stretched across a metal frame. The latter is a safer and more cleanly form of mask and, as it is now supplied with little clips which enable the administrator to readily replace the domette or flannel used in each case, it should commend itself to those who study to eliminate infection through the use of dirty inhalers.

FIG. 1.

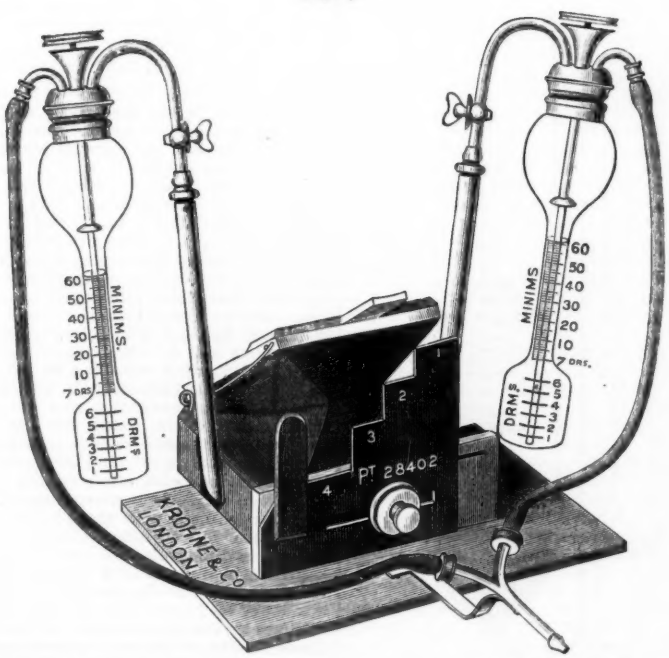


Graduated Air.

In Fig. 2 is shown a ball now supplied in place of the former round one, allowing definite quantities of air to be pumped through the chloroform according as the administrator compresses the rings marked 1, 2, 3, and 4. Fig. 3 shows the apparatus made for use in the tropics, the

FIG. 2.

FIG. 3.



use of rubber being confined to the tubes connecting the small bellows with face-piece and mouth-tube. It will be seen that by moving the stop the amount of chloroform is regulated by the air pumped through the liquid, and ¼, ½, ¾, or 1 minim is delivered at each compression of the bellows.

FIG. 4.

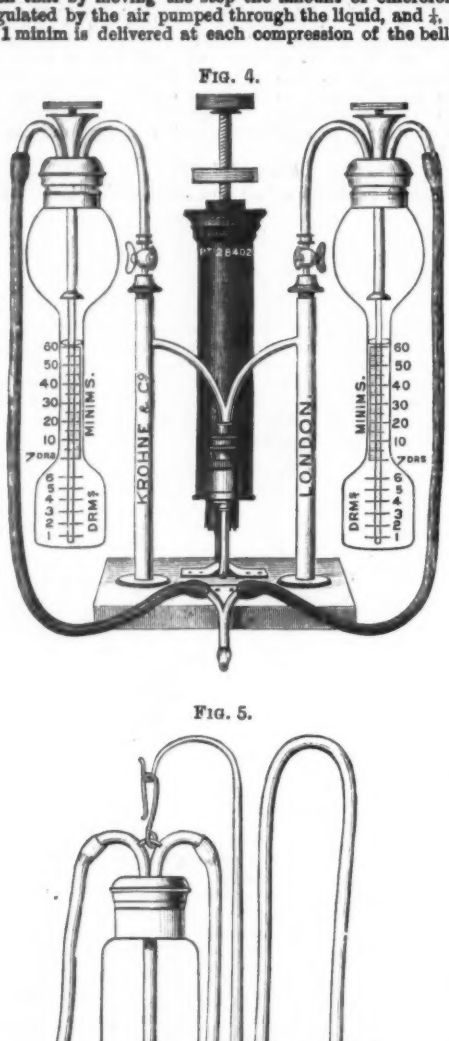


FIG. 5.

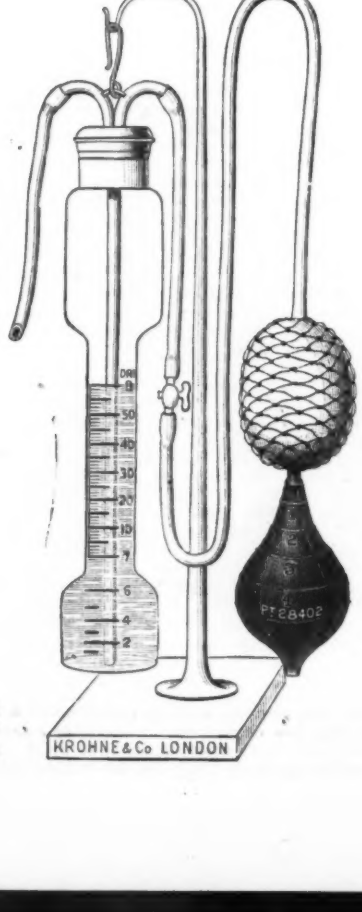


Fig. 4 shows the apparatus with vulcanite or metal air-pump with screw piston rod and nut. This arrangement ensures a rigid precision in the amount of chloroform administered, even, it is claimed, to $\frac{1}{100}$ of a minim. By its use, after commencing the inhalation with a most minute quantity, a gradual and regular increase in definite quantities can be effected. Fig. 5 is to show how accurately the amount of chloroform used can be measured. The eighth drachm is divided up into minims which can readily be read off after each administration.

It is asserted that with this apparatus 18 minims of chloroform will literally produce profound anæsthesia. For this to be the case of course there must be no waste, the quantity must enter the blood of the patient, and to do so in the best possible manner there is no doubt that Messrs. Krohne and Sesemann are correct in advising that it should be given in the most minute doses at a time so that the 18 minims are not absorbed for some minutes. It must be borne in mind that such an ideal result is only attainable in the case of patients who breathe easily and regularly. The data upon which Snow based his figures and those upon which Messrs. Krohne and Sesemann base theirs are derived from auto-inhalation (where the object of the individual is to inspire), whereas in actual practice patients are not always equally well affected towards the anæsthetic and rebel against it if it is not sufficiently diluted. The extreme value of great dilution of the vapour is shown in such cases so that, although the 18 minims limit may be not always achieved, yet by means of a regulating inhaler such as the one under review a far better and infinitely safer result can be obtained than was possible with the older and more crude methods so long in use. As a rule profound anæsthesia is secured with from 1 to 1·5 per cent. of chloroform vapour in the respired air.

ANNUAL REPORT OF THE REGISTRAR-GENERAL ON BIRTHS, DEATHS, AND MARRIAGES IN ENGLAND (1896).

IN THE LANCET of May 21st we reviewed the Registrar-General's annual summary of births, deaths, and causes of death in London and other large English towns for the year 1897, and shortly after going to press we received the report now before us which has reference to the preceding year, 1896. To the uninitiated it does not clearly appear why the report cannot be published until a year later than the summary relating to the same year, we have therefore made inquiries in the proper quarter and have ascertained the following particulars. The annual summary is compiled from the weekly and quarterly returns of the local registrars and relates to the deaths occurring in the 100 principal towns of England and Wales; it can therefore be issued shortly after the close of the year to which it relates and, as a matter of fact, it is generally published about the end of the first quarter of the ensuing year. But the annual report, which is based on the certified copies of the local death registers, cannot even be commenced until these copies have been received at the Central office from every registration district in England and Wales. As the deaths amount to as many as half a million annually and every one of these has to be classified according to age, cause, and locality by experts in the Statistical Department at Somerset House, it will be understood that a vast amount of clerical labour has to be expended before the 380 pages of tables can assume a form suitable for comment and comparison.

In the annual report for 1896 several topics of statistical interest are dealt with, either for the first time or else more fully than in previous annual reports. To one of these topics, which deals with the question of coroner's inquests in relation to uncertified deaths, we referred at length in our leading article of last week. The mortality of England and Wales in 1896 corresponded to a rate of 17·1 per 1000 living. With the exception of the year 1894, when it was lower by 0·5 per 1000, the rate of English mortality in 1896 was the lowest on record. At the several periods of life the death-rates in this year were with very few exceptions the lowest since the commencement of civil registration in 1837. Infantile mortality in 1896 was equal to 148 per 1000 births, and differed scarcely appreciably from the average in the preceeding ten years. In registration counties the mortality

among infants varied enormously, for whilst it was so low as 88 in Wiltshire it rose to 168 in Staffordshire and 175, or nearly double the rate, in Lancashire and Warwickshire.

Examination of the records of past years shows that although the rates of mortality among infants of both sexes vary greatly from year to year, the variations in the proportion of one to the other are comparatively small. Infantile mortality falls much more heavily on males than on females. To 1000 of each sex born in England and Wales during 1896 the proportion of deaths under one year of age were 161 and 134 respectively, showing an excess of 21 per cent. among males as compared with females. At ages under three months the disparity between the two proportions was even greater; the mortality of males at this age was 81 per 1000 births and that of females 64; the deaths of male infants to those of females being in the proportion of 126 to 100 in equal numbers born. Among the diseases which specially affect infants of this tender age bronchitis, pneumonia, and convulsions appear to cause greater excess of mortality, and diarrhœal diseases (with enteritis) appear to occasion less excess of mortality, than do diseases of all kinds without distinction of cause, among males as compared with females. Whooping-cough differs from all other maladies to which infants are specially subject by causing greater mortality among females than among males, and this not in 1896 only but for a long term of previous years. The births of males exceed the births of females in proportions which have ranged between 1033 to 1000 and 1041 to 1000 during the last sixteen years. In every one of these years the relatively excessive mortality among male infants has had the effect of nearly equalising the numbers in each sex who survive to one year of age.

In the year 1896 as many as 78,000 deaths, or 15 per cent. of the total mortality, were caused by zymotic diseases. There was a fall in the aggregate mortality from these diseases in 1896 as compared with the preceding year, and this fall was due to a marked decline in the mortality from influenza and from diarrhœal diseases. In England and Wales the deaths referred to small-pox in 1896 corresponded to a rate of 18 per 1,000,000 living as compared with rates of 49, 27, and 7 per 1,000 000 respectively in the three preceding years. Of the 541 small-pox deaths registered in England and Wales not fewer than 443 occurred in the registration district of Gloucester. Within the first two quarters of the year there were registered in the City of Gloucester from all causes 716 deaths, and of these as many as 421 deaths, or 59 per cent., were ascribed to small-pox. During the first half of the year 1896 therefore the mortality of that city was increased, on account of small-pox alone, by 143 per cent. Of the 541 persons whose deaths were caused by small-pox in 1896 only 8 per cent. were certified to have been vaccinated, whilst 22 per cent were unvaccinated, and with respect to the remainder no sufficient statement as to vaccination appeared in the certificates. In addition to the deaths definitely ascribed to small-pox 151 were attributed to chicken-pox and 42 to "effects of vaccination." These latter include not only the deaths directly referred to vaccination but also those which were stated in the certificates or were found on inquiry to have been caused by the entrance of any noxious material whatever at the site of vaccination. In the year 1894, the last for which the necessary returns are as yet available, the deaths under the heading "Effects of Vaccination" were in the proportion of 1 in every 12,583 children vaccinated. The year 1896 was one of unusually heavy mortality from measles, with one exception the death-rate from measles was higher than in any previous year on record. Scarlet fever was considerably less fatal than the average, although the rate was somewhat higher in 1896 than it had been in the preceding year. Taking England and Wales as a whole the mortality from enteric fever in the year under notice was below the decennial average. If a line be drawn across England from the Wash to the Dee, that part of the country which lies to the north of this irregular line showed in 1896 enteric fever rates which were markedly in excess of the average for England and Wales, whilst that part of the country to the south of the line experienced rates of mortality which were below the average. The deaths referred to diphtheria in 1896 were in the proportion of 292 per 1,000,000 of the population, which exceeded the proportion in any previous year with the exception of 1893-94. London showed the highest death-rate from diphtheria, the other counties with excessive rates in 1896 were Kent, Essex, North and South Wales, Warwick, Worcester, and Cheshire. Whooping-cough was the cause of a mortality in England and Wales during 1896 which was in excess of the average. In London and in 19 of the other English counties the rates were exceptionally heavy, whilst in the rest of the country the rates were below the average. Among constitutional diseases cancer and diabetes were more fatal in 1896 than the average in the preceding ten years, whilst phthisis showed a mortality which was the lowest hitherto recorded. Two important tables are inserted in the present report showing the mortality at different ages among males and females from cancer and from pulmonary consumption. The first of these tables shows that throughout the four quinquennial or decennial periods ending with 1895 the mortality from cancer both among males and among females at every age group from 35 years onwards had steadily increased and that in the year 1896 there had been a still further increase. The table further shows that whereas among males the mortality from cancer has increased in 35 years by 153 per cent. the increase among females within the same interval has been limited to 74 per cent. The second table shows that whereas the mortality from phthisis has decreased since the year 1861 by 40 per cent. among males the decrease among females during the same period has been equal to 54 per cent. The table further shows that at the present time men die from phthisis much more rapidly than women do, although in periods anterior to 1870 the reverse was the case.

THE ROYAL COMMISSION ON THE METROPOLITAN WATER-SUPPLY.

THE twenty-second meeting of the Royal Commissioners was held at the Council Chamber of the Westminster Town-hall on May 16th. With the exception of Mr. Cripps, Q.C., all the Commissioners were present. The first part of the sitting was occupied by taking the evidence of M. Gaston Cadoux, Chief of the Bureau of the Prefecture of the Seine, who gave evidence with regard to the water-supply of Paris. The latter part of the sitting was occupied by the re-examination of Sir A. Binnie whose evidence was not concluded at the end of the sitting.

M. GASTON CADOUX said that in his opinion the present system of administering the water-supply of the city of Paris was preferable to that which previously prevailed when the waterworks were owned and managed by a commercial company. Up to the year 1860 Paris was supplied with water by a single company—the Compagnie Générale des Eaux. The water was at that time derived from the rivers Seine and Marne. The whole of the property of the company was bought and the rate of charges which consumers had to pay was placed under the control of the city authorities. The witness did not know what the original capital of the company was or what amount was paid in dividends. The charges originally fixed by the municipality had been lowered more than once since they had undertaken the supply. The greater part of the water was supplied by meter. In the case of the poor inhabitants a charge of 20 francs a year was made for a supply not exceeding 125 litres a day.

Major-General SCOTT remarked that a water-supply of 125 litres was a small one.

The witness replied that poor people did not require much water and did not take baths. The flow of water was slow, the arrangement being that no more than the arranged quantity could pass to the consumer. The cost of the meter was paid by the consumer. The witness did not know what the cost of the meter was. After the property of the water company had been bought by the municipality a considerable amount was paid in obtaining water from springs. Recently steps had been taken against the pollution of the rivers; the work was now going on but it would not be completed for nearly two years. The question of river pollution was under the control of the Prefecture of the Police, but at present the Seine is polluted by sewage and by refuse from the factories which are situated on its banks. A law has recently been passed to prevent pollution, but the matter of control is found to be difficult. At the present time river water is only supplied for drinking purposes during periods of drought; for the last two years the water of the Seine has been

I.—TABLE SHOWING THE DAILY AVERAGE QUANTITY OF WATER PER MONTH DELIVERED FROM THE THAMES (INCLUDING THE HANWORTH GRAVEL BEDS) BY THE METROPOLITAN COMPANIES DURING THE YEARS 1896–97, AND THE PERCENTAGE OF THE DAILY AVERAGE SUPPLY FOR THE YEAR 1896–97.

(*Compiled from the Water Examiner's Monthly Returns and put in evidence before the Commission by Sir Alexander Binnie.*)

Month. 1.	1896. 2.		1897. 3.		1896–97. 4.	On 300 million gallons a day. 5.
		Percentage of daily average supply for year.		Percentage of daily average supply for year.	Percentage of daily average supply for year.	Million gallons.
January	106,393,376	93·9	105,437,515	92·9	93·4	280·2
February	105,656,479	93·2	108,301,037	95·5	94·4	283·2
March	105,072,590	92·7	107,848,471	95·1	93·9	281·7
April	107,025,403	94·5	108,767,332	95·9	95·2	285·6
May	121,045,981	106·8	117,814,749	103·9	105·3	315·9
June	128,656,399	113·5	118,905,483	104·8	109·2	327·6
July	135,111,359	119·2	130,664,474	115·2	117·2	351·6
August	119,144,724	105·1	123,612,581	109·0	107·1	321·3
September	111,228,831	98·2	115,642,180	102·0	100·1	300 3
October	110,352,889	97·4	114,419,476	100·9	99·1	297·3
November	105,822,276	93·4	107,127,314	94·5	93·9	281·7
December	103,765,108	91·6	101,849,282	89 8	90·7	272·1
Daily average	113,315,551	100·0	113,415,729	100·0	100·0	300·0

II.—TABLE SHOWING THE EFFECT PRODUCED ON THE NATURAL AND ACTUAL FLOW OF THE THAMES AT TEDDINGTON WEIR DUE TO THE AVERAGE ABSTRACTION OF 300 MILLION GALLONS A DAY BY THE STAINES SCHEME WITH RESERVOIR CAPACITY OF 28,000 MILLION GALLONS, AND A SUPPLY TO LONDON GIVEN IN THE MEAN PROPORTION OF THE YEARS 1896 AND 1897, THE MINIMUM FLOW OF THE THAMES AT TEDDINGTON WEIR BEING 200 MILLION GALLONS A DAY.

(*Put in evidence before the Commission by Sir Alexander Binnie.*)

Year.	Daily average flows per annum at Teddington.			Number of days during which the actual flow of Thames fell below 200 million gallons per day.	Number of days on which Thames would be drawn upon for supply or to fill up reservoirs.	Number of days Thames would be reduced to 200 million gallons over Teddington Weir.	Natural flow of the Thames during the period of minimum flow in col. 7.			Actual flow of the Thames during the period of minimum flow in col. 7			Rainfall for the year in inches.	Remarks on condition of reservoirs.
	Natural flow.	Actual flow.	Resultant flow under Staines scheme.				Average.	Maximum.	Minimum.	Average discharge at Teddington.	Maximum.	Minimum.		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	Million gallons.	Million gallons.	Million gallons.	Days.	Days.	Days.	Million gallons.	Million gallons.	Million gallons.	Million gallons.	Million gallons.	Million gallons.	Inches.	
1885	1174·8	1093·5	892 6	10	315	129	425 3	699·3	263 8	334·3	620·0	166·0	29·15	Reservoirs full up to June 17th, fell to 7130·8 million gallons on September 10th, and to 6716 million gallons on October 8th.
1887	1154·6	1066 5	867·6	10	348	153	422·9	677·7	255·0	328·1	595·0	153·9	21 32	Reservoirs full up to June 21st, fell to 4235·8 million gallons on October 29th.
1893	992·4	888·3	730 9	28	337	188	405·2	671 6	252·3	297·9	575·0	141·3	22·08	Reservoirs full up to May 31st, empty on October 8th and 9th, and bottom impurity drawn upon from November 8th to 15th to the extent of 820 million gallons.
1896	1087·2	973·0	796·4	33	336	127	421·9	722·8	243·4	296·5	605·0	108·1	25·82	Reservoirs full up to May 28th. Fell to 4886·8 million gallons on September 1st.
Averages...	1102·2	1005·3	821·9	20 2	334	149·2	418·3	692 8	253·6	314 2	598·7	142·3	28·5 mean of long period.	

III.—TABLE SHOWING THE EFFECT PRODUCED ON THE NATURAL AND ACTUAL FLOW OF THE THAMES AT TEDDINGTON WEIR DUE TO THE AVERAGE ABSTRACTION OF 300 MILLION GALLONS A DAY BY THE STAINES SCHEME WITH RESERVOIR CAPACITY OF 38,000 MILLION GALLONS, AND A SUPPLY TO LONDON GIVEN IN THE MEAN PROPORTION OF THE YEARS 1896 AND 1897, THE MINIMUM FLOW OF THE THAMES AT TEDDINGTON WEIR BEING 250 MILLION GALLONS A DAY.

(*Put in evidence before the Commission by Sir Alexander Binnie.*)

Year.	Daily average flows per annum at Teddington.			Number of days during which the actual flow of Thames at Teddington fell below 250 million gallons.	Number of days Thames would be drawn upon for supply or to fill up reservoirs.	Number of days Thames would be reduced to 250 million gallons over Teddington Weir.	Natural flow of the Thames during the period of minimum flow in col. 7.			Actual flow of the Thames during the period of minimum flow in col. 7.			Rainfall for the year in inches.	Remarks on condition of reservoirs.
	Natural flow.	Actual flow.	Resultant flow under Staines scheme.				Average.	Maximum.	Minimum.	Average discharge at Teddington.	Maximum.	Minimum.		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	Million gallons.	Million gallons.	Million gallons.	Days.	Days.	Days.	Million gallons.	Million gallons.	Million gallons.	Million gallons.	Million gallons.	Million gallons.	Inches.	
1895	1174·8	1093·5	909·9	35	315	131	428·0	699·3	263·8	337·1	620·0	166·0	29·15	Reservoirs full till June 27th. Fell to 9,779·2 million gallons on Oct. 8th.
1897	1154·6	1066·5	889·2	29	348	160	430·5	727·7	255·0	335·8	620·0	153·9	21·32	Reservoirs full till June 19th. Fell to 6,186·2 million gallons on Oct. 30th.
1893	992·4	888·3	756·7	58	337	206	422·5	749·5	252·3	315·3	650·7	141·3	22·08	Reservoirs full till May 26th. Bottom impurities drawn down by 494 million gallons, Nov. 12th to 15th.
1896	1087·2	973·0	806·2	51	335*	136	434·2	731·1	243·4	309·6	617·2	108·1	25·82	Reservoirs full till May 4th. Fell to 7843·8 million gallons on Sept 1st.
Averages...	1102·2	1005·3	840·5	43·2	333·7	158·2	428·8	726·9	253·6	324·4	627·0	142·3	28·5 mean for long period.	

* Compensation given to river on July 28th of 6·6 million gallons.

filtered before distribution. When river water is distributed for drinking purposes a notice to that effect is placarded in the public places. The parks and gardens are watered by a supply from the Seine and for these places and for the chief streets—as, for example, the Rue de Rivoli and the Boulevards, where a considerable amount of water is used—the supply is conveyed in separate mains. When the river water is used for drinking purposes it is pumped from the river to one of the reservoirs which is usually used for the supply of spring water. The amount of water used per head is about 123 litres per day—that is, roughly, about 27 gallons.

In answer to Sir GEORGE BARCLAY BRUCE the witness said that industrial undertakings were included in this estimation but not the amount used for watering the roads. The spring water is derived from several sources. The first new source was that of Dhuis, from which place there is an aqueduct 131,162 metres in length. Water comes also from the Verdon and Surmelin valleys whence it flows by gravitation to the reservoir at Ménilmontant. The amount of water brought daily from this source is about 20,000 cubic metres. The total cost of obtaining this supply, including the purchase of the springs, compensation to the land-owners and mill-owners, and the amount paid for building the aqueduct, was 18,000,000 fr. The next source used was at Vanne; the work was begun in 1870 and was finished in 1874. The length of aqueduct is 173,000 metres and over a distance of no less than 16,000 metres the aqueduct is supported on arches. The cost was 39,000,000 fr. Between 1880 and 1888 water was derived from springs at Cocheysies. The cost was 3,180,000 fr. and the average amount of water obtained was 120,000 cubic metres. Between the years 1892 and 1894 a new supply of water was derived from the Vigne and the Avre. The cost of the undertaking was 35,000,000 fr. and the quantity of water obtained was 115 cubic metres daily; the length of the aqueduct is 102,000 metres. The work is not yet quite finished. The city has obtained power to bring water from the Loing and the Lunain. It is hoped that from 115,000 to 120,000 cubic metres will be obtained from these sources and that the work will be finished by the year 1900. The estimated cost is 25,000,000 fr. When the works of the water company were bought the company was still entrusted to supply the water for a period of fifty years. This period will end at the close of the year 1909. The city engineers deliver the spring water into the reservoirs and the company have nothing to do with this delivery of water to them, but they distribute it to the consumers. The rates charged depend on agreements made by them with the company, but regulations as to tariffs are passed by the municipal council and approved by the Prefect. The supply to public institutions is not in the hands of the water company; the quantity of these supplies is about one-tenth of the amount of the private supplies.

Sir ALEXANDER BINNIE, engineer-in-chief to the London County Council, put in a series of tables a consideration of which led him to the conclusion that the restricted flow of the Thames would be insufficient to cleanse the lower part of the river from the pollutions caused by the sewage effluents which discharge into the river at Barking and Crossness. The facts given in the accompanying tables are, from Sir A. Binnie's point of view, of the greatest importance and the tables represent the sum of his evidence in the smallest possible space.

THE BRITISH DENTAL ASSOCIATION.

THE annual general meeting of the British Dental Association was held at Bath on May 28th, 30th, and 31st, in the Assembly Rooms. A large gathering of members was present and the experiment of holding the meeting at Whitsuntide may be considered a great success.

General Meeting.

Sir EDWIN SAUNDERS, who took the chair at the general meeting in the enforced absence of the President (Dr. Stack),

referred in sympathetic terms to the illness of Dr. Stack and inducted Mr. W. A. Hunt of Yeovil, the new President, in the chair.

Presidential Address.

Mr. W. A. HUNT, in his presidential address, dealt chiefly with the two questions of the use of anæsthetics in dentistry and the legal protection of the dental profession. Commencing with the historical part of the former of these subjects he said that Horace Wells, a dentist of Hartford, Connecticut, demonstrated in his own person the practicability of nitrous oxide anæsthesia by having a tooth extracted under its influence on Dec. 11th, 1844. Wells then introduced nitrous oxide anæsthesia into general surgery and many surgical operations were performed with its assistance. The next development was that Morton, formerly his pupil and subsequently his partner, a year and nine months afterwards, at the suggestion of Jackson the chemist, used ether for the painless extraction of teeth. Surgical operations were performed under ether in the Massachusetts Hospital in October, 1846, and Dr. Bigelow of that hospital, writing from Boston, sent an account of the proceedings to his friend Dr. Boott in London, who communicated the discovery to Mr. Robinson, a dentist in Gower-street. Mr. Robinson administered ether to a patient and extracted a molar painlessly on Dec. 19th, 1846, which was the first operation of the kind in this country, and he sent a full account of it to Mr. Hunt, sen., of Yeovil, the speaker's father, who immediately had an inhaler made and is believed to have been the first man out of London to make use of ether. The term anæsthesia was suggested by Dr. Oliver Wendell Holmes. The employment of nitrous oxide in Europe was revived by Dr. Evans, the Paris dentist, who brought Mr. Colton with him from Paris to London in March, 1868, with a record of 25 000 cases in America and some in Paris without a death. Mr. Hunt continued as follows: "Thus history points with no uncertain finger to dentists as the originators of anæsthesia. ..... Gentlemen, with these matters of history to guide us, are we to be told that the production of anæsthesia is not within the ability of a duly qualified dentist? The very suggestion to my mind is preposterous. But, on the other hand, the safety, the life of the patient, is in the hands of the anæsthetist, and he should be carefully taught his responsible duty and should satisfy his examiners when seeking his diploma that he has the needful knowledge. Neither in the medical profession nor in our own is this done, and I consider it high time that steps were taken to alter this state of things." With respect to the legal position of the dental profession Mr. Hunt said that more than one-third of the practitioners on the Dental Register held diplomas approved by the General Medical Council, the remainder having no special diploma. While admitting that unregistered persons ought not to be allowed to act as dentists he was not in favour of immediately increasing the stringency of repressive measures, mainly because it seemed to him that the dental requirements of the public were in excess of the practitioners competent to supply them. In the course of his address Mr. Hunt made reference to the abundant Roman remains found in Bath, including a Temple of Minerva, and extensive hot baths 20 ft. below the level of the present city, small portions of which have been explored.

The Reports of the Honorary Secretary and Honorary Treasurer.

In the report of the honorary secretary attention was drawn to the fact that since the last annual meeting no legal proceedings had been undertaken, due in some measure to actions pending on the part of the General Medical Council and the Medical Defence Union. The report also mentioned the formation of a new branch under the name of the "South Wales and Monmouthshire Branch." The report of the honorary treasurer showed that the finances of the association were in a satisfactory condition, the amount invested standing at £1000.

The Meeting of 1899.

It was decided to hold the annual meeting next year at Norwich during Whitsuntide, and Mr. Wentworth White was nominated President-elect.

Papers.

Several interesting papers were read during the meeting. Mr. J. G. Turner gave the results of his investigations into the Pathology of Dental Cysts and showed that the large majority were distinctly epithelial in origin and were closely connected with adherent masses of epithelium met with in the dental ligament. Mr. J. F. Colyer contributed a paper on the Early Treatment of Crowded Mouths and pointed out the value of the removal in many cases of the unerupted first premolar. This paper was illustrated by lantern slides of the cases before and after treatment. Mr. G. Cunningham read a communication on the Immediate Regulation of Teeth and showed the models of various cases before and after treatment. Other papers were contributed by Mr. J. Smith Turner on Matters Connected with the British Dental Association; by Mr. Headridge, on Dental Education and Medical Qualifications; by Mr. Gartrell and Mr. Coxon, on Strengthening for Vulcanite Work; and by Mr. W. R. Ackland, on Cases of Secondary Affections due to Teeth.

The Microscopical Section.

The Microscopical Section was presided over by Mr. F. J. Bennett, who delivered a most interesting inaugural address. Papers were read by Mr. Hopewell Smith on Healing Processes in the Dental Pulp, by Mr. Storer Bennett on Erosion, and by Mr. Leon Williams on Structural Changes in Human Enamel with Special Reference to Clinical Observation on Hard and Soft Enamel. Mr. Arthur Underwood also showed some interesting slides in connexion with enamel. A collection of microscopical slides, specimens, and photomicrographs were exhibited during the meeting.

Entertainments.

The scientific and technical work of the meeting was agreeably diversified by a variety of social entertainments. On May 27th (the evening before the meeting) there was an informal reception of members by the President of the Western Counties Branch and reception committee in the Assembly Rooms; on the 28th there was a reception by the Mayor in the Pump Room and Roman Promenade; on the 29th (Whit-Sunday) the Mayor and Corporation invited the members to meet them at the Municipal Buildings and then to proceed to the Abbey, where Divine service was held; on the 30th the city architect gave an account of the ancient baths and showed the most recent excavations, Mrs. Dudley received ladies at an "At Home," and the annual dinner of the association was held in the Assembly Rooms; on the 31st there was a conversazione by the President at the Assembly Rooms; and June 1st was devoted to excursions to various places of interest.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns 6704 births and 3548 deaths were registered during the week ending May 28th. The annual rate of mortality in these towns, which had declined in the four preceding weeks from 18·4 to 16·4 per 1000, rose again last week to 16·5. In London the rate was 16·0 per 1000, while it averaged 16·8 in the thirty-two provincial towns. The lowest rates in these towns were 8·0 in Croydon, 10·1 in Wolverhampton, 10·4 in West Ham, and 11·1 in Brighton; the highest rates were 22·1 in Gateshead, 22·2 in Newcastle-upon-Tyne, 22·5 in Liverpool, and 23·2 in Sunderland. The 3548 deaths included 400 which were referred to the principal zymotic diseases, against 383 and 380 in the two preceding weeks; of these, 134 resulted from measles, 131 from whooping-cough, 55 from diphtheria, 34 from diarrhœa, 26 from scarlet fever, 19 from "fever" (principally enteric), and 1 from small-pox. No death from any of these diseases was recorded last week in Brighton or in Swansea; in the other towns they caused the lowest death-rates in Nottingham, Blackburn, and Huddersfield, and the highest rates in Birmingham, Hull, Liverpool, Manchester, and Halifax. The greatest mortality from measles occurred in Bradford and in Halifax; from scarlet fever in Halifax; and from whooping-cough in Birmingham, Sheffield, Liverpool, Sunderland, Gateshead, and Newcastle-upon-Tyne. The mortality from "fever" showed no marked excess in any of the large towns. The 55 deaths from diphtheria included 27 in London, 4 in West Ham, 4 in Cardiff, 4 in Liverpool, and 3 in Leeds. One fatal case of small-pox was registered in Newcastle-upon-Tyne, but not one in London or in any other of the thirty-three large towns, and no small-pox patients were under treatment in any of the Metropolitan Asylum Hospitals.

The number of scarlet fever patients in these hospitals and in the London Fever Hospital on Saturday last, May 28th, was 2195, against 2271, 2247, and 2241 at the end of the three preceding weeks; 256 new cases were admitted during the week, against 209, 229, and 223 in the three preceding weeks. The deaths referred to diseases of the respiratory organs in London, which had been 232 and 177 in the two preceding weeks, rose again last week to 216, but were 73 below the corrected average. The causes of 40, or 3·0 per cent., of the deaths in the thirty-three towns were not certified either by a registered medical practitioner or by a coroner. All the deaths were duly certified in Portsmouth, Nottingham, Salford, Newcastle-upon-Tyne, and in eleven other smaller towns; the largest proportions of uncertified deaths were registered in Bristol, Birmingham, Halifax, and Hull.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 19·8 and 19·9 per 1000 in the two preceding weeks, further rose to 21·4 during the week ending May 28th, and exceeded by 4·9 per 1000 the mean rate during the same period in the thirty-three large English towns. The rates in the eight Scotch towns ranged from 14·8 in Aberdeen and 15·7 in Leith to 23·7 in Dundee and 26·2 in Paisley. The 647 deaths in these towns included 31 which were referred to whooping-cough, 29 to measles, 13 to "fever," 8 to scarlet fever, 6 to diarrhœa, and 4 to diphtheria. In all, 91 deaths resulted from these principal zymotic diseases, against 83 and 104 in the two preceding weeks. These 91 deaths were equal to an annual rate of 3·0 per 1000, which was 1·1 above the mean rate last week from the same diseases in the thirty-three large English towns. The 31 fatal cases of whooping-cough corresponded with the number recorded in the preceding week, and included 18 in Glasgow and 4 in Edinburgh. The deaths from measles, which had been 32 and 27 in the two preceding weeks, rose again to 29 last week, of which 14 occurred in Glasgow, 7 in Edinburgh, and 6 in Dundee. The deaths referred to different forms of "fever," which had been 6 and 4 in the two preceding weeks, rose to 13 last week, of which 9 were recorded in Glasgow. The 8 fatal cases of scarlet fever showed a decline of 6 from the number in the preceding week, and included 3 in Glasgow, 3 in Edinburgh, and 2 in Aberdeen. Of the 4 deaths from diphtheria, 2 occurred in Glasgow and 2 in Edinburgh. The deaths referred to diseases of the respiratory organs in these towns, which had been 109 and 119 in the two preceding weeks, further rose to 125 last week, but were slightly below the number in the corresponding period of last year. The causes of 25 or nearly 4 per cent., of the deaths in these eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 22·5 and 24·0 per 1000 in the two preceding weeks, declined again to 23·1 during the week ending May 28th. During the past four weeks the death-rate in the city has averaged 23·5 per 1000, the rate during the same period being 16·1 in London and 18·7 in Edinburgh. The 155 deaths registered in Dublin during the week under notice showed a decline of 6 from the number in the preceding week, and included 14 which were referred to the principal zymotic diseases, against 7 and 10 in the two preceding weeks; of these, 4 resulted from diphtheria, 3 from whooping-cough, 3 from "fever," 2 from diarrhœa, 1 from measles, 1 from scarlet fever, and not one from small-pox. These 14 deaths were equal to an annual rate of 2·1 per 1000, the zymotic death-rate during the same period being 2·1 in London and 3·2 in Edinburgh. The fatal cases of diphtheria, which had been 1 and 2 in the two preceding weeks, further rose to 4 last week. The deaths referred to different forms of "fever," which had been 2 and 4 in the two preceding weeks, declined again to 3 last week. The mortality from measles, scarlet fever, and whooping-cough exceeded that recorded in the preceding week. The 155 deaths in Dublin last week included 28 of infants under one year of age and 38 of persons aged upwards of sixty years; the deaths of infants showed an increase, while those of elderly persons were below those recorded in the preceding week. 5 inquest cases and 6 deaths from violence were registered; and 49, or nearly a third, of the deaths occurred in public institutions. The causes of 9, or nearly 6 per cent., of the deaths in the city last week were not certified.

THE SERVICES.

NAVAL MEDICAL SERVICE.

STAFF-SURGEON MICHAEL JOSEPH MCCARTHY, M.D. R.U.I., has been promoted to the rank of Fleet-Surgeon in Her Majesty's Fleet.

ARMY MEDICAL STAFF.

Surgeon-Lieutenant-Colonel Naismith has been appointed to the Medical Charge of the Station Hospital, Ayr. Surgeon-Major Clements has arrived for duty in the Home District, and Surgeon-Major Treherne has been posted to the Station Hospital, Western Heights, Dover. Surgeon-Major Hamilton has been posted to Fort George for duty in charge of the Station Hospital. Surgeon-Major Phipps has assumed medical charge at Landguard Fort.

INDIA AND THE INDIAN MEDICAL SERVICES.

The services of Surgeon-Lieutenant-Colonel Cornwall are placed temporarily at the disposal of the Government of Madras. The services of Surgeon-Captain Ricketts are placed temporarily at the disposal of the Foreign Department for employment on plague duty. Surgeon-Lieutenant-Colonel Swaine, Medical Officer, 6th Infantry, Hyderabad Contingent, is appointed to officiate as Sanitary Commissioner, Hyderabad Assigned Districts, during the absence on deputation of Brigade-Surgeon-Lieutenant-Colonel Little.

THE SPANISH-AMERICAN WAR.

According to the reports of Commodore Schley to the War Department at Washington it seems to be now definitely settled that Admiral Cervera's fleet is shut up within the harbour of Santiago with apparently little or no hope of escape without fighting; any advantage consequently which was gained by the Spanish Admiral's adroit manœuvring has been practically lost by his having entrapped himself there. Whilst the Americans were in ignorance of his whereabouts they could not, as we have always contended, attempt the landing of a force in Cuba, for the vessels of the Spanish fleet possessing the greater speed might at any moment inflict a disastrous attack on the transports carrying the United States troops and then steam away, but "bottled up" in Santiago and blockaded by a superior force, Admiral Cervera's fleet is apparently rendered powerless to do anything. If they come out they will probably be defeated or sunk, if they remain in Santiago they run the risk of being starved into surrender. Nor does it seem that the condition of the Spanish reserve fleet at Cadiz is such as to hold out much hope of any Spanish success from that quarter. But there still remain very great difficulties to be encountered by the Americans in their next move if, as is generally believed will be the case, this is to consist of the invasion of Cuba by a big military force, which must largely consist of trained soldiers. Soldiers cannot be made and trained in a day, however good the material, and various other preparations will have to be made on a large scale to secure the success of any such expedition. The United States were from the first, and still are, unprepared. There is a large Spanish force in Cuba, the island is unhealthy, and will become more so as the season advances, and any force which succeeds in effecting a landing and securing a fighting foothold will require to have at its back a large reserve to make up for its losses by sickness and fighting. We may be quite sure that all this is well known to the responsible naval and military authorities and the medical departments of the United States, although it is little heeded by impetuous and irresponsible people. That in determination, promptitude, and enterprising skill, as well as in numerical and financial strength, the United States have the power ultimately to achieve their purpose there can be very little doubt. The war is fast approaching its most critical stage and everything will depend upon the adoption of thoroughly well-considered and organised measures at the present time by the United States Government whether the Spanish-American campaign is soon to bewith in measurable distance of its end or not. Meanwhile there has probably never been a war about which such an amount of false, contradictory, and perplexing news has been published. The reader of the long war columns

apearing from day to day in the newspapers does not know what to believe and is left in a state of utter bewilderment.

SIR ROBERT RAWLINSON, K.C.B.

Army medical officers and all interested in sanitary engineering and practical hygiene will hear with much regret of the death of Sir Robert Rawlinson on May 31st, in his eighty-ninth year. Sir Robert Rawlinson was a distinguished man and did excellent service in his time in the cause of public health. He was one of the Sanitary Commissioners sent out to the Crimean war, where his labours were productive of great practical good and where he was severely wounded by a round shot. He was for twenty-eight years a member of the Army Sanitary Committee. Before that time he had made his mark in surveying and engineering work and in connexion with the Public Health Act, and he subsequently served on several important Commissions and as Chief Engineering Inspector under the Local Government Board. He always manifested a keen interest in sanitary and public health work and did a great deal to advance and apply our knowledge of these subjects in various directions both in civil and military life. He was a man of strong opinions, which he could not readily alter, but the value of his services must close all eyes to his unwillingness to march always with the times.

THE ROYAL NAVAL EXAMINATIONS.

The under-mentioned gentlemen, who competed on May 16th and following days at the Examination Hall, Victoria Embankment, for appointment as surgeons in the Royal Navy, have been granted commissions:—

	Marks.		Marks.
H. C. Whiteside	2646	H. J. Chater	2237
R. L. Dickinson	2563	R. St. G. S. Bond, M.B.	2223
H. W. B. Shewell, M.A., M.B.	2539	C. C. Macmillan, M.B....	2188
J. Martin	2521	F. C. B. Gittings, M.B.	2147
C. B. Fairbank	2494	R. M. Richards	2132
F. F. Lobb	2489	H. E. Raper	2119
G. B. Brown	2445	A. G. Eastment	2105
S. D. T. Halliday	2407	G. E. Duncan	2057
J. G. Corry, M.B.	2354	J. G. Watt	2022
L. B. Todd	2324	G. E. Glynn, B.A., M.B.	1973

THE PLAGUE IN INDIA.

The most important items of intelligence from India in our opinion continue to be those about the plague in that country. The recent outbreak in Calcutta has proved on bacteriological examination to have been true bubonic plague, but it has, we are glad to add, since disappeared—whether temporarily or not remains to be seen. The disease, chiefly in a sporadic form, nevertheless seems to have been widely disseminated in India, for cases have appeared in many parts of that country and the Punjaub.

THE TIRAH FIELD FORCE.

The following names, omitted in previous despatches, have been mentioned by General Sir William Lockhart as being those of officers specially recommended by the general officers under whom they served:—Surgeon-Major A. E. C. Spence, A.M.S.; Surgeon-Captain J. C. Jameson, A.M.S.; and Surgeon-Lieutenant M. Dick, I.M.S.

INDIAN FURLOUGH.

The Government of India have formally opened leave for the medical service. Local governments have been given power to sanction leave and furlough and are to make their own arrangements.

We are asked to announce that the Volunteer Ambulance School of Instruction has changed its address from 10, St. Benet-place, E.C., to 8, Portman-street, Portman-square, W.

UNIVERSITY OF CAMBRIDGE.—Dr. Alex. Hill, Master of Downing College, has been re-appointed Vice-Chancellor of the University for the ensuing academical year.—Dr. Joseph Griffiths, M.A., F.R.C.S., has been appointed to the new Readership in Surgery. A Lectureship in Chemical Physiology is about to be established in the University.—The honorary degree of D.Sc. is to be conferred on the President of the General Medical Council, Sir William Turner, F.R.S.—The following medical degrees were conferred on May 26th:—M.D. on M. Craig, Caius; A. Eichholz, Emmanuel; and C. E. Hedges, Sidney. M.B. on C. R. Skyrme, Christ's; H. D. O'Sullivan, Emmanuel; and E. M. Corner, Sidney. B.C. on F. A. Mills, Clare; H. D. O'Sullivan and E. M. Corner.

Correspondence.

"Audi alteram partem."

THE GENERAL MEDICAL COUNCIL: THE RIGHT OF MEMBERS TO INSPECT THE COUNCIL'S DOCUMENTS.

To the Editors of THE LANCET.

SIRS,—As in the leading article of your last week's issue on the General Medical Council you made a statement in reference to myself which is contrary to fact, I feel constrained (while deferring discussion of the subject as a whole) to dissipate by an emphatic disclaimer the erroneous impression which that statement is unintentionally calculated to produce. Your sentence in question, which referred to the arbitrary confiscation of the right of the members of the Council to inspect the papers of the Council, runs as follows; "*The question raised was one of great importance* [to which I unreservedly agree] *and later was settled in a sense satisfactory to Mr. Horsley and anyone wishing to make a reasonable use of the documents of the Council.*" From this I dissent in every particular, for (1) the question is *not* settled, it has but just begun; (2) I am not satisfied, as I shall certainly prove; (3) I cannot believe that those who *do* wish to make reasonable use of the documents of the Council can concur in a resolution which would make their power of doing so depend not on their existing rights but on the goodwill of an official. There may be some among the members of the Council who care so little for the rights of their position that the confiscation of the powers entrusted to them by Parliament for the faithful fulfilment of their duties can be acquiesced in by them in silence, but if so it is to be trusted they are but few in number, and I for one must protest against being thus publicly classed among them. I regard the act of the President as an action *ultra vires*, the resolution of the Council as also an action *ultra vires*, and the opinion of Mr. Muir Mackenzie, founded on a case of 70 years ago in which a *liveryman* of a company claimed the right of inspection of documents in the hands of the *Court* of a company, as not only irrelevant to the main issue but positively containing a saving clause which precisely confirms my contention. This will be proved, as your readers will see when you publish the opinion in your report. I may here mention that I took no part in either the discussion or the vote upon the resolution moved by Dr. Glover on this subject because, as I have just stated, it was an action *ultra vires*. I desired to disassociate myself entirely from it in order not to prejudice my legal rights in the matter.

There is one further point to which I would call attention. You state that the vote of confidence in the President, but which was really a vote of confidence in the opinion of Mr. Muir Mackenzie, was passed unanimously. This was not so, for I voted against it. The vote carrying Dr. Glover's resolution was also not unanimous, and on the motion to convert it into a standing order Dr. Glover himself did *not* vote in its favour.

Finally, this important constitutional point was relegated to absolutely the last moment of the session, when nearly half the Council had obtained permission from the President to depart and had left. It is a fitting ending to a session the opening of which was characterised by perhaps the most lamentable event in the annals of the Council.

I am, Sirs, yours faithfully,

Cavendish-square, W., May 31st, 1898. VICTOR HORSLEY.

"TRANSMISSION OF SYPHILIS TO THE THIRD GENERATION."

To the Editors of THE LANCET.

SIRS,—May I, without entering in detail into the numerous misstatements contained in Dr. Shaw-Mackenzie's letter in THE LANCET of April 23rd, point out:

1. That William Fergusson in later years held exactly the same opinion upon his "Observations on the Venereal Disease in Portugal" as was expressed in my letter of March 5th. This fact did not become known to me until after the publication of the letter; it seems to prove the

correctness of my interpretation beyond doubt. Fergusson fully realised and frankly admitted the fallaciousness of the conclusions first drawn by him and still deemed "irresistible" by Dr. Shaw-Mackenzie. He no longer attributed the difference which he had observed between syphilis in the Portuguese and syphilis in the English to attenuation in the Portuguese, but to aggravation in the English, and the cause of this aggravation he recognised in the injudicious mercurial treatment enforced by him in accordance with the "utterly baseless creed" of his time—a treatment worse than Portuguese "apathy" because worse than the disease. Fergusson made the "staggering discovery" that by "murderous and unnecessary courses of mercury" he—to use the words he applies to Brown—had "committed havoc like a man of business."

2. That Thomas Rose's communication, although otherwise an "interesting contribution to the history of fallacies" (Virchow), was not a "corroboration" but a rectification of that of Fergusson. When Fergusson wrote his letter to the Royal Medical and Chirurgical Society he could not bring himself to believe that he had "lived so long in utter error" and he "durst not open his eyes to the whole truth." This was only done by the "bolder" Rose proving that the same "curability of syphilis" also existed in England. Thus Rose converted Fergusson from the fanatic belief in Hunterian heresies to the moderate and sound views of his later days.

3. That Aitken's "testimony" adduced by Dr. Shaw-Mackenzie is unavailable on this point because it is based on historical error. Fergusson at no time advocated non-mercurial treatment as Aitken pretends (although his observations became the starting point of anti-mercurialism). "The error lay in the abuse not in the use of the mineral" was his conviction. Much less did he "practise" non-mercurial treatment "during the Peninsular wars," on the contrary, according to his own statement, he "mercurialised to extremity," "even to death." This may explain why Dr. Shaw-Mackenzie in comparing Aitken's "testimony" with my "statement" found a "striking difference."

4. That apart from Fergusson's recantation all positive evidence we possess tends to show that neither in his time nor since has attenuation of syphilis existed in Portugal.

In his views on the pathology of venereal infection Dr. Shaw-Mackenzie is considerably behind Fergusson, who declared it to be "proved from the earliest records of time" that "gonorrhœa and syphilis are two distinct diseases." Dr. Shaw-Mackenzie, on the other hand, is "perilously perhaps but nevertheless instinctively" brought back "to Hunter's theory of unity of origin." Those not possessed of these "perilous instincts" will not be inclined to follow him in his retrogressive track, but will be reminded of the late Dr. Moxon's humorous saying that "poetic feeling produces no little of the reality as well as the pathology of syphilis."

I am, Sirs, yours faithfully,

Welbeck-street, May 22nd, 1898. GEORGE OGILVIE.

To the Editors of THE LANCET.

SIRS,—I am much obliged to you, with Dr. G. Ogilvie's permission, for an advance proof of his further letter. His original paper in the *British Journal of Dermatology*, November, 1897, seemed to me to discredit Fergusson apparently without acquaintance with his original communication and did not duly credit Rose and Mr. Lee with the principal arguments which Dr. Ogilvie himself relied upon. I in no way, therefore, regret the attention you have permitted me to draw to the original works of these authorities.

I readily admit I was not till now aware of any later published views of Fergusson and I admit in this "fragment intended to fill up a gap in the systematic treatment and history of syphilitic disease"[1] Fergusson fully testifies to the aggravation of syphilis in the British by the abuse of mercury. This admission does not detract from the fact of the curability of syphilis without mercury confirmed by him in the Portuguese and corroborated by him and Rose in the British, facts which appear to show mitigation rather than "idiosyncrasy" when compared with those cases which Fergusson further admits "have occurred and will occur in which the use of that remedy has been and will be found absolutely necessary." Moreover, it is impossible to accept that any ignorance of the uses of mercury will explain the difference between syphilis at the present time and the severity, rapidity of propagation (not always by contact), and fatality which the description of the disease showed at the close of the fifteenth century. Fergusson never denied other causes which might account for the difference in severity. He confirms his previous alternative theory of climate and intemperance, to which he adds mercurial abuse. He does not again refer to transmitted partial immunity, but it seems unreasonable to reject in the case of syphilis that which he himself pointed out in the case of other specific fevers and which is generally accepted. In a publication from which Dr. Ogilvie quotes in his last paragraph I have drawn attention to modified syphilitic symptoms in women. I am inclined to think that such cases throw light on acquisition of syphilis modified by hereditary taint. In any case I am convinced it would often be to the advantage of patient and practitioner if the syphilitic origin, as opposed to the gonorrhœal, and the "use" of mercury in many cases of suppurative and pelvic disease in the female and of chronic urethritis in the male, were more generally recognised.

I am, Sirs, yours faithfully,

JOHN A. SHAW-MACKENZIE.

Grosvenor-street, W., May 24th, 1898.

*** This correspondence must now cease.—ED. L.

[1] Notes and Recollections of a Professional Life, by the late Wm. Fergusson, M.D., Edited by his Son, James Fergusson.

CONSTIPATION IN ADULTS AND INFANTS: AN ANSWER TO A REVIEW.

To the Editors of THE LANCET.

SIRS,—In THE LANCET of March 26th there appeared what purported to be a review of my book on constipation (*Constipation in Adults and Infants, with special reference to the Mechanical Methods of Treatment, &c.* The Macmillan Co. 1897). As this is the age of free thought and everyone has a right to hold to his opinion I have no quarrel with the writer thereof if he objects to the methods of treatment, especially the mechanical, advocated in the book, and he is at liberty to treat his cases with colocynth co., with aloes, &c., and other favourite prescriptions of some ancient disciple of Æsculapius, even though it be contrary to what has been advocated by Englishmen (Wilson, Fox, Bristowe, and especially by S. B. Birch of the Medical School of Manchester in his book "Constipated Bowels," first edition, published about 1859) for the last forty years, even though it be contrary to what that eminent clinician Trousseau taught thirty years ago already, and even though it be contrary to the most advanced medical thought of to-day, (Nothnagel, Boas, Rosenheim, Mathieu, Le Marier).

I shall not attempt to controvert his opinion as to the illustrations—*de gustibus non est disputandum;* and as to the style, if he does not appreciate a clear, lucid exposition, so that he who runs may read, that is his affair, not mine. (If it be the personification of that sprite from Greek mythology that he objects to, more particularly in the sentence excerpted, he must call to account, in this world or the next, the same Dr. Birch already referred to. I found it apt and took it from him.) I would have been content to leave all this to the judgment of the English medical public, who are fully competent to judge for themselves and who may decide between us (here in America it is unanimously in my favour, and the book has been accorded a most flattering reception by the medical journals of all shades of practice), and would have held my peace; but I must defend the Latin, even though it be true that it is not the best of Latin, that I took it from an old writer and am therefore not responsible therefor. The defence thereof is brief. If the reviewer (he has probably become a little rusty in Latin—no disparagement—an old practitioner may become rusty in his Latin and Greek even with credit to himself) will kindly read the sentence thus, "Tollitur causa remotus effectus," he will find that all offence against the shades of the grammarians of ancient Rome had vanished.

In conclusion, allow me to say to the readers of your very valuable and highly esteemed Journal that if they will give the methods of treatment of constipation advocated in my book a thorough trial they will obtain excellent results.

I am, Sirs, yours faithfully,

New York, May 18th, 1898. DR. H. ILLOWAY.

"THE LIMITS OF PROFESSIONAL SECRECY."

To the Editors of THE LANCET.

SIRS,—Permit a lay employer a word on an aspect of this question which has hardly, I think, received its due attention. I am an employer who, I venture to hope, take as high a view as most of my duty towards those in my service, that duty including, as I conceive of it, the obligation of charity and kindliness. I also hold the strongest possible views on the question of professional confidence. But in the case of the medical attendant of a servant, questioned by an employer, it seems to me that a situation arises to which professional ethics can hardly be rightly applied in their strictness, and this not by any means because a servant has any less right to protection than his or her master, but because that protection is more afforded by openness than by reticence.

For a master's duty extends to *all* his servants—not only to the sick one; and not only to them, but to every member of his household. And if the illness of any one of them is of a nature dangerous, or indicative of danger, to the rest or any of them, it is his duty to them to remove the peccant one. On the other hand, if no such danger exist it is equally his duty to consider or overlook the otherwise objectionable nature of the disease. But to do this he must know its nature. And if he is simply told that "the complaint is one which the patient objects to my disclosing," what can he possibly do but assume that it is one which, if known, would entail dismissal—and act accordingly? Of course, I do not for a moment mean that if, after this has been pointed out, the servant-patient still insists on secrecy the medical man would be justified in violating it. But I cannot help thinking that, in his patient's own interests, he should deprecate that insistance to the very uttermost.

I am, Sirs, yours faithfully,

May 25th, 1898. AN EMPLOYER.

*** We print the above letter with pleasure, for it sets out with particular force the layman's side of a difficult question. It is because there are such strong arguments as these which "An Employer" uses that the limits of professional secrecy are so hard to define and the medical man's position often so delicate. We adhere to our expressed opinion.—ED. L.

"THE DIPLOMA OF THE APOTHECARIES' SOCIETY."

To the Editors of THE LANCET.

SIRS,—Your correspondent "G.P. and Physician" asks me to explain my letter. With your kind permission I will therefore do so. I stated that "an intolerable amount of snobbism" was going on in the present day with regard to the abuse of the designation "Physician and Surgeon," at which "G.P. and Physician" retorts: "I cannot for the life of me see why 'superior' persons should call him a snob for so describing himself." Now, Sirs, as a matter of fact I have not called, nor do I intend to call, anybody a snob, and if your correspondent chooses to twist my phraseology so as to apply such an offensive epithet to himself it is no fault of mine, as one would have thought it scarcely necessary to point out to him that there is a vast difference between speaking of any system as one of snobbism and calling a person directly a snob, because it is obvious that many persons of good breeding and culture are guilty of some act of snobbism (in fact, probably everybody is) which would not be sufficient *per se* to identify such person as a snob. All I can add, therefore, is that if any given practitioner chooses to inflate himself before the English public with such a puff and pompous title as "Physician and Surgeon" he is undoubtedly, to my mind, guilty of an act of snobbism, although in all other respects his environment, &c., may redeem him from being a snob. I could take your correspondent a rural stroll if so disposed and point out two graduates with "Physician and Surgeon" embedded or incised in marble after a sepulchral fashion, and I can show him a medicine label—one of many sown broadcast amongst the general public—where the aspirant, evidently preferring a title before his name to one after, has in conspicuous letters "Physician" So-and-so on each mixture. I therefore ask your correspondent whether all this is not snobbism, and, if not, let him say what is.

I am, Sirs, yours faithfully,

London, May 23th, 1898. M.R.C.S., L.R.C.P. EDIN.

HOSPITAL ABUSE.

(BY OUR SPECIAL COMMISIONER.)

XVI.—BRIGHTON.[1]

Reform at the Maternity Hospital.—Trivial Cases.—The General Dispensary and its Abuse.—The Sussex County Hospital's Investigation.—Great Increase of Hospital Patients.—The Hospitals Refuse to Assist in the Work of Reform.—Numerous Flagrant Cases of Abuse.

THE figures collected by Dr. F. J. A. Waring concerning the distribution of tickets for treatment at the hospitals of Brighton indicate most clearly that abuse prevails in that town as in so many other places. In 1894 no less than 38,113 tickets were given to intending patients and as some of these tickets were renewed they do not represent the full amount of charitable work done. That these charities are largely abused is clearly demonstrated by the experience of the West-street Lying-in Hospital. In 1894 there were at Hove and Brighton 3704 births registered. No less than 1240 of these births were attended by one charity. But other births were attended at the Brighton and Steyning Infirmaries and by the Merciful Society for helping fallen women. Thus more than one-third of the mothers at Hove and Brighton were in receipt of charity. It is obvious that in so prosperous a locality the proportion of mothers who really needed charitable help was not so high. Dr. Waring states that one of the midwives in the service of the Lying-in Hospital expressed her opinion that half the cases which she attended could well afford to pay. Many of these patients were assured in benefit societies which allow 30*s.* at the birth of each child. As a further proof of abuse it is shown that some years ago the number of patients was not so high, but a midwife was appointed who gained great popularity in consequence of her kindly manners and her skill. The number of applicants for admission to the hospital consequently increased rapidly. Now, however, this midwife has left the hospital and established a private practice of her own. The result is that she is at the present time treating, and receiving fees from, the very same persons who formerly were gratuitously delivered at the hospital. The fee charged by the midwife is 15*s.* and this is readily paid by the former patients of the hospital. These facts, it must be explained, are not new; they were brought so prominently forward in 1894 that action was taken and with good results.

Calling at the West-street Lying-in Hospital I was informed that a wage limit had been established. If the husband had no children and was earning £1 or more a week an inquiry was made. On the other hand, if he had several children then no inquiry was made. Patients, on applying, must bring a letter of recommendation from a subscriber. They are given a card in exchange for the letter and told to call again in a week. The details are entered in a book and shown to the medical officer in attendance and if he objects the secretary is informed and an inquiry is instituted. It will be seen that this is a weak system. Its success depends entirely on the accuracy with which the

[1] The previous articles on this subject were published in THE LANCET on the following dates: (1) Sept. 26th, 1896, Plymouth and Devonport; (2) Oct. 10th, 1896, Exeter; (2 *concluded*) Oct. 17th, 1896, Exeter; (3) Oct. 31st, 1896, St. Thomas's Hospital, London; (4) Nov. 14th, 1896, Liverpool; (4 *continued*) Nov. 21st, 1896, Liverpool; (4 *concluded*) Dec. 12th, 1896, Liverpool; (5) Jan. 2nd, 1897, Manchester; (5 *continued*) Jan. 9th, 1897, Manchester; (5 *concluded*) Jan. 23rd, 1897, Manchester; (6) Feb. 6th, 1897, Leeds; (6 *concluded*) Feb. 13th, 1897, Leeds; (7) April 17th, 1897, Coventry; (8) May 1st, 1897, The Royal London Ophthalmic Hospital; (9) May 8th, 1897, France, United Action and Legislative Action; (10) May 15th, 1897, Leicester; (11) June 5th, 1897, Nottingham; (12) July 31st, 1897, Birmingham; (12 *continued*) Aug. 14th, 1897, Birmingham; (12 *continued*) Sept. 4th, 1897, Birmingham; (12 *concluded*) Sept. 18th, 1897, Birmingham; (13) Oct. 30th, 1897, Southampton; (14) March 5th, 1898, Glasgow; 14 (*concluded*) March 19th, 1898, Glasgow; and (15) March 26th, 1898, Bradford.

recommendation form is filled up. Under such circumstances it is not surprising that but few inquiries are instituted. I was informed at the hospital that not more than six or at most eight such inquiries had been made during the last two or three months. The very vagueness of this reply to my questions suggests that check is not very systematically applied. The medical officer in attendance on the day of my visit did not, however, think that there was much abuse. It was his impression that the husbands of the women usually earned only from 15*s.* to 18*s.* a week and that the greater number were cabdrivers or fishermen. Though this state of affairs can scarcely be considered as very satisfactory it is, with regard to the prevention of hospital abuse, the best that Brighton has to show and it has sufficed to bring about favourable results. In consequence of these measures, such as they are, to prevent abuse, and, above all, as a result of the departure of the popular midwife, the number of patients has considerably decreased. They amounted, as already stated, to 1240 in 1894. In 1895 there were 1172 patients; in 1896 only 1024 patients; and I am told that the figures for 1897, when published, will show a further reduction to 955. These figures are rendered more significant by the fact that the population has, at the same time, been steadily increasing.

As an example of the sort of abuse which has been checked a case was mentioned to me of a woman who applied to the Lying-in Hospital though her husband subscribed to the Hearts of Oak, which allows 30*s.* at each accouchement. Many members of this benefit society strive to be admitted to the hospital for nothing and in this they are often encouraged by people who ought to know better. Thus a man employed by a large dairy paid a fee of £20 for the operation of abdominal section performed on his wife. His employer reproached him for having expended so large a sum and told him that he should have sent his wife to the hospital, where the operation would have been done for nothing. Of the cases of abuse which have not been prevented that of a well-to-do shopkeeper was mentioned to me. It was necessary to induce premature labour for his wife and this was done at the hospital. Another case related to a patient who offered his usual medical adviser four guineas to attend his wife during her confinement. As, however, the patient in question lived a long way off the medical man refused to take the case and recommended a local practitioner whose house was close at hand. Subsequently, and on making inquiries, he found that the woman had been taken to the Lying-in Hospital in West-street, and yet her husband had offered to pay four guineas. In a paper read by Dr. Waring at a special meeting of the Brighton Medico-Chirurgical Society in November, 1895, there occurs the following passage: "Dr. A. H. Dodd and I have written to the following large towns for information—viz., Portsmouth and its adjoining towns, Worthing, Hastings, Eastbourne, Tunbridge Wells, Lewes, Maidstone, Ramsgate, Margate, Dover, Rochester, Red Hill, and Folkestone, covering a population of a little over half a million—and we find that they have no lying-in institutions among their charities. The married people in those towns study the principles of thrift. I firmly maintain that it is not right that a woman should be attended gratuitously in her first accouchement. People should certainly not be encouraged to marry who have not saved sufficient to pay for the expenses of the first little stranger's arrival. I am in possession of the names of men employed in large business firms and receiving wages of over £2 a week and adding to their income by letting apartments who have received from the lying-in charity that assistance for their wives which is only intended for the poor." But, as already remarked, the abuse of the Lying-in Hospital has been greatly reduced since these words were spoken; and as such reform can be achieved with regard to the maternity institution it makes it all the more pertinent to inquire why similar measures are not enforced at the other hospitals.

The Lying-in Hospital was not the only institution criticised and publicly denounced. It was pointed out that in 1894 there were at the Throat and Ear Hospital 55 cases of impacted wax and 14 of simple tonsillitis, and at the Sussex County Hospital 33 cases of circumcision. Such cases do not require long or special attention. Two or three visits from a local practitioner would have sufficed and circumcision could in most cases be deferred till the parents were in a position to pay a small fee to their ordinary medical attendant. Looking at the report for 1896 of the Throat and Ear Hospital I find that there were 63 cases of impaction of wax, and during the same year there were 44 cases of circumcision at the Sussex County Hospital. In 1895 Dr. Waring brought to the notice of the profession a certain number of incidents as examples of the sort of abuse which was prevalent. He said that a county cricketer was at that time sending his daughter to be gratuitously treated at the dispensary. A male patient of the same institution was renting a shop of at least £40 a year. He was a foreman at some works and his wife was also earning a livelihood. Another man in constant employment, earning from 35*s.* to £2 a week, with his son assisting in a shop and his wife letting apartments, sent his infant for treatment. A gentleman living in one of the best parts of Brighton subscribes 10*s.* a year to the dispensary; he sent a young lady relative who was living in his house to be treated for varicose veins and she took away with her elastic stockings, and the gentleman had still remaining after this tickets for four months' more attendance. A man who keeps a shop for which he pays £50 rent, and whose wife lets apartments, sent his children to the Sussex County Hospital. One of Dr. Waring's patients was suffering from cataract; he lived on a pension and had some savings. Dr. Waring offered to procure a surgeon to remove the cataract for the reduced fee of five guineas. The patient replied that he could well afford to pay that sum. Nevertheless, he went to the Eye Hospital, where the operation was performed gratuitously by the very same surgeon. The result of this state of things—and several other similar examples were given—was described by Dr. Waring in the following words: "I have seen no end of young medical men, gentlemanly in manner, well skilled and conscientious in the performance of their professional duties, come into the town with the just expectation of earning a living and leave after a few years' struggle utterly ruined. Some years ago a few doctors in Brighton and Hove together with one or two other philanthropists started a Medical and Surgical Home in Ellen-street and they advertised for resident patients and got some from different parts of the country. There was also a dispensary attached to it where the sick and injured could resort and by purchasing a ticket for one penny receive advice and treatment. Of course a large number flocked to it. A little prior to this a medical man came to Hove whom I knew slightly. I met him once in the street, and from what he told me and from my knowledge of him I knew that he was doing well and was able to support his wife and family; but some time afterwards I met him again and he was shabby in appearance and looked depressed. I asked him what was the matter and received the reply that the Medical and Surgical Home in Ellen-street, together with the General Dispensary, had ruined him."

Calling on a member of the honorary staff of this dispensary he informed me that undoubtedly many of the patients appeared to be in a good position. If inquiries were made it would often be found that the husband was an engine-driver; but the patients would argue that they had a right to come because they put a penny a week into one of the boxes which are known at Brighton as the "workmen's boxes." This is an old-standing practice. An employer sends the box round and with the pennies collected from his workmen he buys tickets which he gives to the workmen or their families. Of course the employer does not make any close inquiry into the position of his workmen, whose wives are often lodging-house keepers and thus make a good income. At the railway works there are many labourers and others who receive very low wages and are generally fit persons for a charity. But the skilled artisan whose wife lets lodgings can well afford to pay a few small fees for ordinary illnesses or he can join a provident club; and I am told that there are ten or twelve fully-qualified practitioners in Brighton who will take sixpenny fees. Indeed, the situation of the profession at Brighton is at present so deplorable that I was told that it would be inexpedient to attempt to raise the club fees. There are too many starving medical men ready to take the place of anyone who should complain. Another general practitioner, however, urged that the competition of the provident dispensaries was more disastrous than that of the hospitals. A medical man on the staff of the General Dispensary admitted to me that there certainly was some abuse, but not much. The medical officers had to report cases of abuse; but, of course, they could not do this very often. He

himself had reported a case of gonorrhœa on the ground that if a man could afford dissipation he could afford to pay a medical practitioner's fee. Besides there were medical men who undertook to attend a patient at his house for a whole week for only one shilling. In the face of such competition it was very difficult to act and he felt that if he attempted to prove cases of abuse he would become unpopular. One of his patients, a lady in receipt of an income of £500 a year, said that she was absolutely unable to pay £40 for a very serious operation, therefore she went up to London to get it performed at a cheaper rate. Many persons living in very good houses came to the dispensary, but in spite of appearances they were sometimes in very precarious positions. Lodging-house keeping is very hazardous and it often happened that all the furniture of persons so engaged was seized and sold. He did not think that the well-to-do tradesmen of Brighton were particularly prone to attend the hospitals; but nevertheless there was a widespread feeling that medical men were defrauded, but it was difficult to obtain positive proofs of the fact. Then the medical men had a great amount of gratuitous work to do for curates, governesses, and domestic servants.

The General Dispensary was founded in 1809, therefore it is a very old-established institution, and has so grown in importance that there are now a western branch and a northern branch besides the parent institution. At each of these there is a house surgeon attached who receives a salary of £140 a year but is debarred from private practice. Then there are four district medical officers who receive between them £280 a year. But apart from the paid staff there is an honorary consulting physician, an honorary consulting surgeon, an honorary visiting staff of twelve physicians and surgeons and two dental surgeons. This staff attended during the year 1896 no less than 15,078 patients and this was a decrease of 700 on the previous year. At the western branch there are wards and here 125 in-patients were treated in 1896. The number for the previous year was 113. There are fifteen beds at the western branch so that this constitutes yet another hospital. Patients are accepted at the General Dispensary on presenting a letter of recommendation and on paying a registration fee of 6*d*., but free letters are distributed in return for contributions from friendly societies and to the collectors of workmen's boxes. Subscribers of only half a guinea annually are entitled to recommend six patients, and of course a much larger number of recommendations are given in exchange for larger sums. The government of the institution is vested in benefactors of £10 10*s*. and upwards and in subscribers of £1 1*s*. or more annually, and they are entitled to attend the general annual meeting so as to elect the committee of management and all officers. For these meetings Masonic lodges, friendly societies and other institutions of a similar character which subscribe £3 3*s*. annually may nominate a representative. The house surgeons and the district medical officers have to visit at their homes such patients as are unable to attend at the surgery. Then there is a Samaritan fund for the purpose of providing patients with extra diet, &c. The in-patients are received at the western branch on the recommendation of the house surgeon or one of the branch honorary medical staff. But domestic servants or other workpeople employed by governors living in the district may be received as in-patients on the payment of not less than 12*s*. weekly. The income from all sources during the year amounted to £3800, of which £691 consisted of dividends on investments; the patients' 6*d*. registration fees amounted to £253 and the contents of the workmen's boxes to £309. The annual subscriptions amounted to £820. Then there were donations and life subscriptions to the amount of £495; congregational collections, £206; and legacies, £1022. I have omitted the shillings and pence. These figures show the importance of this institution and the population of Brighton is estimated for the year 1896 at 120,000. As an example of abuse a case was related to me concerning a man who is employed by the town and receives a salary of 30*s*. a week. Two or three of his children are in regular employment and his wife does a good business in letting apartments. Nevertheless she took her child to the dispensary to be treated for a fractured arm and when the surgeon in attendance expressed his surprise she replied: "Is not the dispensary a place for all accidents?" On another occasion a tradesman who pays £35 rent for his house and lets apartments obtained a dispensary ticket and took his child there to be treated for a slight injury to the forehead. Then another case was mentioned to me of a child who was a patient at the dispensary though the father earned as a gardener 27*s*. a week, owned a house worth £25 a year, and did a good business in letting apartments. It is generally felt that far too many letters of recommendation are given in exchange for small subscriptions.

(To be continued.)

LIVERPOOL.

(FROM OUR OWN CORRESPONDENT.)

Asylum Accommodation in Lancashire for Pauper Lunatics.

AT the recent quarterly meeting of the Lancashire Asylums Board, held in the County Hall, Preston, Mr. Shelmerdine (Liverpool), on behalf of the Lord Mayor of Liverpool, drew the attention of the board to the delay in the completion of the extra wards at Whittingham Asylum. The Lord Mayor had received a letter from Dr. Raw (the medical officer of the Mill-road Infirmary, Everton) complaining of the congested state of the insane wards in that institution, which were so crowded that it was impossible for him to give adequate supervision to dangerous lunatics. Eight lunatic cases were sleeping (at the time Dr. Raw wrote) in the ordinary wards, a state of things to be greatly deplored. The chairman of the Whittingham Asylum Committee said the work had been greatly hampered by strikes and other causes, but they were making every effort to hasten the completion of the necessary wards. The Lord Mayor of Liverpool takes an active interest in the matter, being a member of the West Derby Board of Guardians.

Hospital Saturday Workshops' Collection.

On Saturday, May 21st, the twenty-eighth annual collection in the workshops, warehouses, and other industrial establishments in the city on behalf of the medical charities took place. During the past twenty-seven years the sum of £80,172 has been raised by means of this agency. The collection in the streets called the "ladies' day" are fixed for June 11th, after which date the combined amounts will be advertised.

Hospital for Women, Shaw-street.

Dr. John E. Gemmell, the junior assistant medical officer, has been promoted to the post of acting medical officer, rendered vacant by the resignation of Dr. T. B. Grimsdale. Dr. David Smart has retired from the honorary staff of the hospital after eleven years' of devoted service. Much regret is felt both by the medical staff and committee at the severance of Dr. Smart's connexion with the hospital, for with all of them he was deservedly popular.

The Robert Gee Medical Scholarship.

Mr. Hubert Gordon Thompson, a former student of the Liverpool College, has been the successful candidate in the competition for the Robert Gee Medical Scholarship at University College, Liverpool. Mr. Thompson had previously matriculated at the University of London, having been placed in the first division.

Sir Henry Tate, Bart.

Mr. Henry Tate, formerly resident in Liverpool, who has been the recipient of a baronetcy on the occasion of the Queen's birthday, has been a generous benefactor to the city of Liverpool. He contributed £8000 to the funds of the Liverpool Royal Infirmary and generously assisted other local medical charities, besides contributing largely to the Royal Jubilee Nursing Fund. The spacious library in University College, Liverpool, was also one of Mr. Tate's numerous benefactions. His eldest son and heir to the baronetcy also takes an active interest in hospital work, being a member of several committees, notably of that of the Liverpool Royal Infirmary.

May 31st.

SCOTLAND.

(FROM OUR OWN CORRESPONDENT.)

The Perils of the Medical Profession.

ANOTHER name has been added in Glasgow to the long roll of those who have fallen in the performance of duty. Mr. Thomas Henderson, son of Dr. T. Brown Henderson of that city, a student of medicine of much promise, has at the early age of twenty-two fallen a victim to blood-poisoning contracted in the pursuit of his hospital work as the result

of assisting at an operation (a case of osteomyelitis) in the Royal Infirmary. Seven weeks ago he became affected with blood-poisoning which seemed to have passed off satisfactorily, until Sunday, May 15th, after returning from church, fresh symptoms of blood-poisoning manifested themselves in the form of dark spots on the skin and also on the mucous membrane of the mouth and throat (purpura hæmorrhagica), and in spite of all that medical skill could do the disease proved fatal in seventy-three hours from effusion of blood on the brain. Mr. Henderson was of a singularly amiable disposition and was ardently devoted to his medical studies and much sympathy is felt for his father in the painfully sad circumstances. It is somewhat striking that several members of the profession in Glasgow have recently suffered from blood-poisoning similarly contracted, and we understand that one of these was an eminent surgeon who was infected from the case at which Mr. Henderson assisted when he received the blood infection. Only in Mr. Henderson's case, however, has a fatal result ensued, although in the case of the surgeon referred to the illness assumed for a time a serious character.

June 1st.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

The Rotunda Lying-in Hospital, Dublin.

THE Lucina Bazaar and Fête, which was held in aid of the funds of the Rotunda Hospital, came to a conclusion on May 21st and proved most successful both as an entertainment and as a means of earning money for the funds of a great charity. The bazaar was formally opened by her Excellency the Countess Cadogan, who afterwards visited the performances in the gardens of the Rotunda on more than one occasion.

The British Dental Association and Dr. Stack of Dublin.

At the meeting of the British Dental Association, which took place at Bath on May 28th, a resolution was proposed by Sir Edwin Saunders, dentist to the Queen, that the following message, expressing the feeling of the assemblage, should be despatched to Dublin:—

That the members of the British Dental Association, now assembled at Bath for their annual meeting, desire to give expression to their heartfelt sympathy with Dr. Stack, and in doing so they would indulge in the hope that a further turn of rest may enable him to be restored to his family and to resume the duties and pursuits of active professional life.

Dr. Stack, the President of the British Dental Association and Professor of Dentistry at the Royal College of Surgeons in Ireland, occupies the very highest position in his branch of the profession here and is most deservedly popular not only among dentists but also with his colleagues at the College of Surgeons and elsewhere. Wide sympathy is felt with him in consequence of the severe attack of illness from which he now suffers. It is hoped, however, that he will soon be convalescent and able to resume his professional duties.

Hospital Saturday in Belfast.

Hospital Saturday in Belfast was held on May 28th, when about £400 was realised—that is, £80 in excess of 1897, and a larger amount than was obtained at any time during these last five years.

Queen's College, Cork.

The Cork College was very well represented at the recent medical examinations of the Royal University, as may be seen by the following statement:—Second Examination: Honours and exhibitions awarded to two students, one of whom was educated at Queen's College, Cork. Third Examination: Honours and exhibitions awarded to two students, one of whom was educated at Queen's College, Cork. Degree Examination: Honours and exhibitions awarded to two students, both of whom were educated at Queen's College, Cork. It will thus be seen that out of a total of six honours and exhibitions awarded at the various examinations four were won by students of Queen's College, Cork.

Dr. Thomas A. Kelleher has been appointed house surgeon to the Waterford City and County Hospital.

The Local Government Board for Ireland have appointed Mr. Edgar Flinn, F.R.C.S. Irel., D.P.H., of Kingstown, to be a medical inspector under the board.

June 1st.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

Agglutination of Tubercle Bacilli.

M. S. ARLOING made a communication to the Academy of Sciences on May 16th on the subject of the Agglutination of the Bacillus of Tuberculosis. He said that Koch's bacillus, like several other pathogenic microbes, may be made to agglutinate by certain serums. If to some drops of a homogeneous culture or emulsion of the bacilli there is added one-tenth of blood serum of a healthy goat which has never received any inoculation no agglutination is produced. If for this serum there is substituted that of a goat which has been submitted to a long series of subcutaneous injections of more or less virulent samples of either tuberculin or Koch's bacillus phenomena of agglutination soon make their appearance in an intense and complete form. The slight natural agglutinating power of the blood of the ass also increases considerably under the influence of such injections. The agglutinating power of normal serum of different kinds is in inverse ratio to the tendency of the respective animals to contract or to resist tuberculosis. It does not exist in the rabbit and the guinea-pig, which are easily rendered tuberculous; it is very slight in the goat, is more pronounced in the ox and the ass, and is very marked in the horse, which rarely becomes tuberculous. Serum rendered strongly agglutinating by subcutaneous injections of Koch's bacilli or tuberculin produces agglutination either in cultures growing in liquid media or in homogeneous emulsions of fowl tuberculosis, a phenomenon which tends to show a relationship between Koch's bacillus and the bacillus of fowl tuberculosis. The action of the agglutinating serum shows itself equally well in the case of bacilli growing in glycerinated bouillon. The agglutinating power may originate and develop in a very short space of time. Attempts to obtain agglutination in the diagnosis or prognosis of tuberculous disease in the human subject have given the following results: (1) the blood serum of persons affected or supposed to be affected with true pulmonary phthisis caused agglutination 94 times in every 100—complete agglutination 57 times and incomplete 37 times; (2) the blood of patients suffering from surgical tuberculosis caused agglutination 91 times in every 100—complete agglutination 35 times and incomplete 56 times; (3) the serum of various patients caused agglutination 32 times in every 100—very good agglutination 11 times and imperfect 21 times; and (4) the serum of persons supposed to be healthy caused agglutination only 22 times in every 100—very good agglutination 11 times and incomplete 11 times. The proportion of positive results gives reason to hope that the agglutination of Koch's bacilli may prove useful as a clinical method.

The Prophylaxis of Tuberculosis.

In the discussion on M. Grancher's report to the Academy of Medicine on the prophylaxis of tuberculosis, M. Gibert of Havre proposed at the meeting held on May 24th that the academy should represent to the executive the desirability of instructing the prefects to take measures for the disinfection of places occupied by persons who have died from phthisis, whether in town or in country. He remarked that in Havre there are streets inhabited by poor people where phthisis nevertheless does not exist, while, on the other hand, there are streets in which the death-rate from phthisis is 13 per 1000. As for phthisis among soldiers, he has constantly seen army surgeons pass into the service young men affected with tubercle and whom he had certified to be so affected. In order to avoid hurting the feelings of the army surgeons he thought that the medical men in attendance on such cases ought to communicate directly with the prefects and sub-prefects of the departments. M. Laveran said that latent tuberculosis was much more common in the army than was generally supposed. Some soldiers did not venture to go on the sick list and in this way might suffer for a long time from unrecognised tuberculosis; they might also be the means of imparting the disease to their comrades. With regard to such prophylactic measures as the use of spittoons and the damping of whatever has to be swept it has not been found possible to carry out these precautions efficiently, and sweeping is once more done in the ordinary way, raising clouds of dangerous dust. Although paraffin and coal-tar rendered flooring-boards impervious to unwholesome matter, these substances were nevertheless not used in the majority

of barracks. M. Ferrand said that the notification of contagious and infectious disease entails many difficulties. The law of 1892 is too seldom put in force as it is, but what would be the state of affairs if it were extended to tuberculosis? Up to the present time notification of infectious diseases has been made by only a small number of medical men—6 out of 25 in one department and 2 out of 13 in another. The duty of notifying ought not to be laid on the medical men, but on the family and on those who have the care of the patient. A satisfactory way would be for the medical man to have a book with counterfoils, from which book he could detach a page containing a notification and leave it with the family to be sent by them to the authorities. According to M. Collin the precautions taken in the army—namely, the use of spittoons and sprinkling with water before sweeping—are insufficient and ought to be supplemented by additional measures, such as the renewal of floors, the rendering of them non-absorbent, local disinfection, the construction of new mess-rooms, and the providing of infirmaries apart from the living-rooms.

Medical Men in the New Chamber of Deputies.

The last Chamber of Deputies contained 55 medical men. Of this number 7 did not offer themselves for re-election; of the 48 who sought re-election, 14 were not returned, while at the same time 14 new medical members have been elected, so that 48 medical men will have seats in the new Chamber—a reduction of 7 on the number in the preceding one.

The Tarnier Bequest.

The municipal council of Dijon has just received a copy of the will of Dr. Tarnier. He bequeaths sundry articles to the Dijon museum, and 100,000 francs (£4000) to the city, to be employed in some charitable work at the discretion of the city; he, however, expresses the wish, without imposing it as an obligation, that the money should be applied for the benefit of pregnant or lying-in women or newly-born children. The Council has decided to give the name of Tarnier bequest (*legs Tarnier*) to this fund, and one of the streets of the city will be called after the late eminent professor.

May 31st.

BERLIN.

(FROM OUR OWN CORRESPONDENT.)

Ether-Drinking.

IN the *Vierteljahrsschrift für Gerichtliche Medicin* Dr. Cohn, medical officer of health of the district of Heydekrug, draws attention to the fact that the habit of ether-drinking has become prevalent there. This district is situated in East Prussia, near the Russian frontier, and has recently acquired some notoriety in connexion with leprosy imported from the adjacent Russian territory. The population consists principally of Lithuanians, who are of Slav race and whose social and hygienic condition leaves much to be desired. They were formerly much addicted to spirit-drinking, and when spirits became expensive on account of an increase in the duties ether was substituted. It is said that a feeling of pleasurable exhilaration is produced more rapidly by ether than by alcohol, and that the subsequent depression and discomfort are less marked; unfortunately, however, this stage of exhilaration is only too transient. This use of ether causes chronic catarrh, fatty degeneration of the heart, atheroma of the great vessels, cirrhosis of the liver and cerebral troubles which may result in idiocy. The habit of ether-drinking has taken such a hold of the people that, according to Dr. Cohn, on market days when the peasants from the neighbouring villages are in town the smell of ether from their breath is perceptible everywhere. When a vehicle occupied by peasants is met on the high road a cloud of ether seems to float along. Both sexes equally have this failing and when the market is over men and women in nearly equal proportions may be seen intoxicated in the streets. The school-teachers report that mere children often come to school showing signs of having taken ether before leaving home. Mothers also give it to children suffering from abdominal pain. Ether may be easily obtained in the druggists' shops and licensed pharmacies, where it is sold without a medical man's order in the form of "Hofmann's drops" (ether 1 part, alcohol 3 parts). Dr. Cohn is of opinion that the injurious effects of ether warrant its being classed with opiates, arsenic, and other drugs which are only sold for medicinal purposes and on presentation of a prescription by a medical practitioner; he considers, therefore, that the amendment necessary for this purpose ought to be made in the instructions contained in the Pharmacopœia as well as in the regulations of the pharmacies.

The Berlin Accident Service.

An interesting trial of the efficiency of the Berlin ambulance and first-aid service was made on May 19th. At 7 P.M. the chief medical officer of the Berlin police, Dr. Wehmer, without previous notice ordered an urgent telegram to be sent from the central police-station to all the branch police-stations by the special police wires. The telegram was as follows: "Great disaster at Alexander-street. Alarm all the ambulances and surgeons of the accident service (*Unfall-Stationen*). You are strictly forbidden to mention that this is only a false alarm." When the police-stations had received this telegram they telephoned to the *Unfall-Stationen*, which at once sent vehicles to the scene of the alleged disaster. The surgeons were very much astonished when they found no dead or wounded, but only Dr. Wehmer and some other police and municipal officials. It was stated that ten minutes after the alarm was given two surgeons were in attendance with assistants and dressing material; five minutes later two horse ambulances appeared, and before long there were 10 ambulances and 25 surgeons on the spot—surely enough to attend a great many injured. The last ambulance from the most distant quarter of the city arrived about forty-five minutes after the alarm. The sight of so many ambulances driven rapidly through the streets brought a great crowd to the place of the alleged disaster. The excellence of the organisation of the first-aid service was fully proved by this sudden rehearsal.

Hygiene on Railways.

The Imperial Health Office has recently issued instructions with a view to prevent the spread of disease by railway traffic. The regulations are especially intended for the lines leading to and from health resorts which tuberculous patients are in the habit of visiting. It is recommended that the sides of the sleeping-cars of these lines should be as smooth as possible and without corners so that they may be easily cleaned. Velvet should not be used for the cushions, which, moreover, should be capable of being easily removed for the purpose of disinfection. Every compartment ought to be provided with covered spittoons. The floors of the waiting-rooms in the stations ought to be washed every day and the walls at short intervals. The walls are to be painted with oil paint which can be frequently washed. When new premises are to be constructed special attention must be paid to matters of hygiene. The Minister of Public Works, who has the control of the railways, has communicated these recommendations of the Health Office to the railway authorities and has ordered them to be adopted.

May 27th.

EGYPT.

(FROM OUR OWN CORRESPONDENT.)

Pilgrimage declared Foul.

THE Quarantine Department in consequence of the existence of plague in the holy places has now declared this year's pilgrimage to be infected. It is difficult to see how they could have taken any other course. The troubles of an International Quarantine Council are, however, interminable, for every nation insists on its own interests being studied and it must be assumed officially that all are equally honest and interested in modern hygiene to the same degree. A case has just occurred which illustrates this official difficulty and also the importance of trying to foresee the possible negligence of any one quarantine inspector. Some members of the board recently desired to put the whole of the west coast of Arabia into quarantine because of plague at Jeddah, and presumably at other ports of the Hedjaz. Moreover, it was felt that a Turkish military cordon round any given place constituted no real safety that disease could not leak through it. The Turkish representative protested and cited as an argument that when plague exists at Bombay or Karachi the whole of the western coast of India is not declared infected. The official number of Egyptian pilgrims this year is 4541.

Case of Imported Plague at Suez.

A vessel belonging to the Khedivial Postal Steamers, which run every fortnight between Suez, Yambo, Jeddah,

and Suakin, is now the centre of some interest. It appears from the official reports that the ss. *Mehallah* left Suez with mails and passengers in the ordinary way on April 19th, left Tor on April 20th, and arrived at the outer harbour of Jeddah on April 23rd, where she stayed for two and three-quarter hours to discharge mails, but did not receive anyone or anything on board from Jeddah and never entered the inner port. The same day, April 23rd, she stopped at Ras el Aswed, the temporary port for Mecca, south of Jeddah and its neighbouring islands, and of course on the west coast of Arabia in Turkish territory. Here she stayed two and a half hours to disembark 67 Egyptian pilgrims from Suez. Their baggage was landed by means of a winch and crane; no person from the shore or boats came on board and no person on board went into the boats or ashore. In fact, it is stated, both here and at Jeddah, that there was no personal communication. I give merely the official story, but I may state here that the captain, doctor, and crew of the vessel are Egyptians. Later the *Mehallah* called at Suakin and returned to Suez on April 30th, where the quarantine officer, Dr. Hodgson, gave her free pratique because there was no illness on board and because she had come from ports which were officially clean. That is to say, the quarantine officials in Alexandria, in spite of plague at Jeddah, had not decreed that the outer harbour of Jeddah and Ras el Aswed were officially infected. For the same reason the crew and passengers of the *Mehallah* were not specially examined for possible plague and they were naturally allowed to land at Suez and disperse to their homes. On May 1st the Egyptian stoker of the steamer suddenly became ill with rigors, fever, headache, vomiting, and swelling and pain in the right groin. The following day the native doctor from the steamer visited him at his house to see why he did not come on board and reported that he was too ill to do so; and this visit was repeated on the 3rd. Fortunately, on the 4th, about noon, the patient invited Dr. Creswell of Suez to see him. Dr. Creswell at once recognised that it was a case of plague, removed the man to the Infectious Hospital in the desert outside the town, disinfected the house, destroyed or sterilised the effects, and placed the patient's household under observation. The whole incident has been the cause of trouble and anxiety, but this has been minimised to a great extent by Dr. Creswell's ready diagnosis and prompt action. The Sanitary Department in Cairo at once despatched Dr. Bitter to Suez to examine the matter bacteriologically and Surgeon-Captain Garner to carry out all necessary hygiene. The crew of the vessel were all reclaimed from their homes in Suez and, though all healthy, were put on board the *Mehallah* in the dry dock and eventually despatched to Moses' Wells, where they remain under the charge of the quarantine officials. The families of the crew are also being kept under observation. The 17 passengers landed at Suez were next traced by the police, some having already reached Upper Egypt. 16 are all healthy and are being kept under police inspection. As they all came from Suakin and not from Jeddah there cannot be any risk of primary plague among them. The remaining passenger died at Suez in the French hospital soon after landing and this naturally excited some comment, but it is now known that he died from phthisis, that he had been ill for four months, and that he made this voyage in order to consult Dr. Zachariades at Tor, who knew him as a former patient in the last stage of tuberculosis. Dr. Creswell on examining the stoker found that he had a small wound outside the right ankle, which may have been the site of the entry of the bacilli; his femoral and inguinal glands were enlarged and he had severe headache, weak and rapid pulse, albuminuria, and fever (102·6° F., rising to 104° that night). On May 5th, when seen with Dr. Bitter, he had a characteristic tongue; his temperature was 102·2°, his pulse was 110, and one of the right femoral glands was red and as large as a pigeon's egg but without fluctuation. Dr. Bitter decided it was a simple bubonic case and at once pricked the gland. Many staphylococci and some degenerated plague bacilli were at once seen under the microscope and later cultures were developed in the ordinary way. Since then Dr. Bitter has kindly shown me in Cairo the plague cultures from this case. The last news of the stoker is that his bubo has discharged a few drops of pus and that he himself is convalescing satisfactorily. Suspicion has now fallen upon a sailor on the *Mehallah*, reported by Dr. Hodgson to have a temperature of 100·4°, a pulse of 100, and a gland in the left axilla as large as a turkey's egg. The diagnosis in this case is not yet made. The health of Suez is now very good, the town is fairly clean, and there is an energetic governor who under English pressure will make it cleaner still. Dr. Ardouin, Dr. Legrand, and Dr. Morrison have also visited Suez, being respectively the Inspector-General, the French doctor, and the British delegate on the Quarantine Board of Alexandria.

Mysterious Importation.

How did this patient get plague? We know that there is no plague at Suez, Tor, or Suakin; we are told there is none at Ras el Aswed; and we know it exists at Jeddah. If we are impolite enough to discredit the official story and assume instead that either at Jeddah or Ras el Aswed, presumably the former, the stoker imported rags, clothes, carpets, or something which contained plague bacilli the case becomes less mysterious. The premonitory symptoms of the illness appeared seven or eight days after the steamer left Jeddah. Now, observers at Hong-Kong and in Bombay have told us that the incubation period is from three to five or even ten days. In cases of direct contagion, such as a nurse catching the disease from a patient, we know (in Bombay) the incubation period may be as short as three days. But it is fair to assume that weakened bacilli lying dormant in clothing may take longer than five days to develop; also we cannot tell whether the unfortunate stoker infected his ankle the same day on which he visited the coast of the Hedjaz or later.

Cairo, May 11th.

NEW YORK.

(FROM OUR OWN CORRESPONDENT.)

A National Society for the Study of Epilepsy and the Care and Treatment of Epileptics.

IT is proposed to establish a national society for the study of epilepsy. It has been roughly estimated that there are 140,000 epileptics in the United States. There is not at the present time any organised body—scientific, professional, lay, or philanthropic—for the study of epilepsy and the care and treatment of the epileptic. It would seem that a national society or association for the study of epilepsy and the care and treatment of epileptics might serve a useful purpose and do the greatest good, but it should be organised along broad and comprehensive lines. A summary of its proposed work may be stated as follows: 1. The scientific study of epilepsy. 2. The rational treatment of the disease. 3. The best methods of caring for dependent epileptics, including (*a*) the construction of proper homes based upon a study of the epileptic's need as to classification and environment; (*b*) the study of the utilisation of the epileptic's labour for economic, scientific, and ethical reasons; and (*c*) the study of the best educational methods to be employed, including manual, industrial, intellectual, and moral forms and forces. In such a society, science, philanthropy, and practical charity may well combine for a common purpose.

Eucaine.

The latest anæsthetic preparation is eucaine, prepared from a South American plant, and in its local action similar to cocaine, but without any of the poisonous effects of the latter, even though employed in much larger doses. The severest test as yet reported was the amputation at the lower third of the leg of a man, sixty-eight years old, without the use of chloroform or ether, followed by rapid and painless healing of the stump. As much of the eucaine was put into two or three tablespoonfuls of water as the water would dissolve and with a hypodermic syringe a few drops of the solution were injected under the skin; about 1 in. from the centre of the injection another was made, then another, until the limb was girdled by them at the place where amputation was intended. After waiting five minutes to allow the superficial tissues to become insensible the needle was thrust deeply into the muscles and injection made; in a few minutes all that portion of the leg, including 3 in. or 4 in. above and below the ring of injections, was found to be destitute of feeling, and the operation of cutting off the limb was proceeded with exactly as with chloroform. When the deeper tissues were cut into a slight smarting sensation was experienced a few times, but immediately relieved by the application of a little more of the solution to the seat of the discomfort.

The National Conference of Charities and Correction.

This conference celebrated its twenty-fifth birthday in New York on Wednesday, May 18th. The conference was organised in 1874 and has met annually since that time. It is composed not only of the representatives of charitable and correctional institutions and societies, but also of men and women who are interested in the broad field of charity in the United States, Canada, and Mexico, and has at the present time nearly 1200 members. The meetings of the conference bring together a large body of people who are earnestly interested in good works and who constitute a congenial fellowship. The conference continues for a week. General meetings are held daily and section meetings are held for the discussion of social subjects, such as charity organisation, dependent children, insanity, juvenile reformation, prison reforms, municipal and county charities and college settlements. The conference has no tests of membership. It offers a free forum to all who are interested in these branches of sociology.

Conditions favouring Tuberculosis.

The Massachusetts Board of Health, in its conclusions relating to the prevalence of tuberculosis in the State, emphasises as one of the chief conditions favouring the production of that disease the continuous and habitual breathing of unrenewed air; consequently in workshops, factories, schoolrooms, public buildings, halls, churches, and the inhabited apartments of dwellings and tenement-houses the absence of adequate means of ventilation must conduce to augment the danger. Of course, dampness of soil on which a house stands and dampness of the immediate neighbourhood tend to the same result, as does, naturally, the occupancy of living- or sleeping-rooms or apartments which are constantly damp or are partly or wholly underground. Another factor inducing the spread of this disease was found to be the presence of dust in the air of apartments, factories, mills and workshops; hence, necessarily, occupations or trades in which men, women and children are exposed to the inhalation of irritating dust must increase the liability to contract phthisical ailments.

May 19th.

Obituary.

JOHN BARRITT MELSON, M.D. CANTAB.

AT the advanced age of eighty-seven years Dr. Melson passed quietly to his rest on May 30th at his country house at Lapworth, near Birmingham. For many years Dr. Melson was widely known in the Midland counties, not only as a physician of high scientific and cultured knowledge, but also as an eminent and powerful preacher in the Wesleyan cause. In this direction he attained a celebrity which overshadowed his professional duties and led him to the pursuit of theology more than that of medicine. The son of a Wesleyan minister, Dr. Melson was born in Forfarshire in 1811. At the age of fourteen years he was apprenticed to a Mr. Harris, a surgeon in Birmingham, where for several years he learned the practical part of his profession. Proceeding thence to Trinity College, Cambridge, he took, after five years' residence, the degrees of Bachelor in Arts and Doctor in Medicine; here, too, he was on account of special merit elected a Fellow of the Cambridge Philosophical Society. At the age of twenty-four years he returned to Birmingham and at once began practice as a physician, and on the founding of the Queen's Hospital he was appointed on the staff. About the same time he became Professor of Natural and Experimental Philosophy and Clinical Medicine at Queen's College. At this period, too, he lectured upon physics and electrodynamics at the Philosophical Institution, having among his pupils the late Archbishop of Canterbury (Dr. Benson) and the present Bishop of Durham (Dr. Westcott). At the first meeting of the British Association in Birmingham Dr. Melson and Dr. Golding Bird were joint secretaries of the chemical section. Faraday was also a friend of his and entrusted him with complicated problems to solve in the way of his scientific knowledge. At an early age he was appointed a justice of the peace for the borough and he discharged these duties with painstaking care for many years, long remaining the senior magistrate on the local bench. A man of conspicuous abilities, of high scientific attainments, and of wide and profound classical and general learning, he devoted his energies to the promotion of good works and to the advancement more particularly of the Wesleyan cause. Tall and commanding in person, dignified in bearing, of genial and kindly manners, his presence will be greatly missed, his death causing the breaking of a link in the long chain of the past. He leaves three sons and three daughters, having married in 1836 Miss Waller, of Luton, Beds, who died in 1879.

HENRY HAYMAN, F.R.C.S. ENG.

BY the death of Mr. Henry Hayman, which occurred on March 21st last, at the age of eighty-six years, there has passed away one of the few remaining representatives of what in its best sense is understood as the old school of general practitioners. Descended from good old Devonshire families through both parents, Henry Hayman was born at Axminster in 1812, where his father conducted an extensive practice for many years. Educated at Blundell's School, Tiverton, he became a student at St. Bartholomew's Hospital, where he was contemporaneous with such men as Paget and Holden. He passed his M.R.C.S. and L.S.A. examinations in 1834 and had the Fellowship of the Royal College of Surgeons of England conferred upon him in 1858. Commencing practice at Chelsea and afterwards at Margaret-street, Cavendish-square, he was for some years consulting-surgeon to Queen Adelaide's Royal Lying-in-Hospital. In 1848 he returned to Ottery St. Mary, where under the strain of a large general practice his health broke down; but after a period of rest he again entered upon active practice in 1868 at Stokenchurch, Oxfordshire, from which he retired and finally relinquished practice in the year 1884. Whilst at Stokenchurch he won the gratitude of the people by securing for them a public water-supply in the face of bitter opposition from some of the owners of property. Here he also founded a lodge of the Oddfellows Society known now as "Court Hayman," the members of which have testified their lasting gratitude to him in a recent letter to the family. A staunch Churchman, he was a man of high culture and genial disposition, of fine physique with a handsome face, rich voice, and possessing a keen sense of humour and an almost inexhaustible store of anecdotes gleaned through a long life of active and varied intercourse with his fellow-men.

THOMAS GIORDANI WRIGHT, M.D. LEYD., M.R.C.P. LOND.

DR. THOMAS GIORDANI WRIGHT, who died in Wakefield on May 27th, had been in practice in that city for the long period of sixty-five years. He was born in February, 1808, at Stockton-on-Tees, where his father and grandfather were organists at the parish church. Dr. Wright received his medical education at University College, London, and also in Edinburgh. He became qualified as L.S.A. in 1830; in the following year he was admitted M.R.C.S. Eng. and graduated as M.D. at the University of Leyden. In 1841 he became a Licentiate of the Royal College of Physicians of London and a Member in 1859. He was present at the opening of the Stockton and Darlington Railway in 1825, and was one of the original members of the British Association for the Advancement of Science.

DEATHS OF EMINENT FOREIGN MEDICAL MEN.—The deaths of the following eminent foreign medical men are announced:—Dr. Johannes Alexander Garten, *privat-docent* of Surgery in Leipsic, and formerly for many years assistant in the Surgical Clinic of the University.—Professor Friederich Jacob Trier, a well-known Copenhagen physician and author. He was one of the editors of two important Scandinavian medical journals. His father, Dr. Seligman Meyer Trier, took an important share in the work of introducing a knowledge of auscultation and percussion into Denmark.—Dr. Dezanneau, Professor in the Medical School of Angers.—Dr. Neudörfer, *privat-docent* of Surgery in Vienna.

THE GENERAL COUNCIL OF MEDICAL EDUCATION AND REGISTRATION.

THURSDAY, MAY 26TH.

THE Council met again to-day, the PRESIDENT, Sir WILLIAM TURNER, being in the chair.

The Case of William Masson.

The Council proceeded to the consideration of the case of William Masson of Cottingham, E. Yorks, registered in Scotland Dec. 12th, 1888, as M.B., Mast. Surg. 1888, Univ. Aberd., who was summoned to appear before the Council on Nov. 26th, 1897, to answer the following charge on the complaint of Mr. Edward Ball of Southport, registered as Lic. R. Coll. Phys. Edin. 1886; Lic. R. Coll. Surg. Edin. 1886; Lic. Fac. Phys. Surg. Glasg. 1888:—

That he had acted and acts as cover to an unqualified person named George Watson, who, acting and purporting to act as his unqualified assistant, was and is permitted, authorised, and enabled by him to carry on medical practice and administer treatment to patients as if he (Watson) was a duly qualified and registered practitioner.

It was particularly alleged against him (Masson) that George Watson attended a woman named Higgins in her confinement, using instruments upon her, and that on the death of the woman he (Masson) signed and gave a death certificate purporting to certify that the woman had died from eclampsia. At the conclusion of their deliberations the Council determined: "(1) that the charge made against Dr. William Masson had been proved to the satisfaction of the Council; and (2) that the further consideration of the charge proved against Dr. William Masson be adjourned until the next session."

The PRESIDENT, addressing Dr. Masson, said: I may remind you of your position. The charge which was made against you was fully inquired into in November last and at the conclusion of the Council's deliberations it was determined that the charge had been proved but that the further consideration of it should be adjourned until the present session. So now I have to ask you if the unqualified person, George Watson, is still in your employ.

Dr. MASSON: No, sir; I told you when I was here before that I had already discharged him.

The PRESIDENT: Have you any unqualified assistant in your employ?

Dr. MASSON: I have not.

The PRESIDENT: Will you give the assurance that in the future you will not employ an unqualified assistant?

Dr. MASSON: Certainly I do.

The PRESIDENT: You give the assurance.

Dr. MASSON: Yes.

The Council then deliberated *in camerâ* on the case and when Dr. Masson was recalled

The PRESIDENT addressed him as follows: The Council has further considered your case and the following resolution has been come to:

The Council having further considered the charge against William Masson it does not judge him guilty of infamous conduct in a professional respect.

I may tell you that the Council has come to the decision relying upon your statements that you have ceased to employ an unqualified assistant and that you have no further intention of employing an unqualified assistant. The matter, therefore, is now at an end.

The Case of Julius Mostertz.

The Council next dealt with the case of Julius Mostertz, of 13, Salisbury-road, Noel-park, N., registered in London as Lic. Soc. Apoth. Lond. 1893, who was summoned to appear before the Council on Nov. 27th, 1897, to answer the following charges:—

(1) The complaint related to a dispensary or establishment carried on or conducted at 13, Salisbury-road, Hornsey, under the title of the Noel-park Dispensary.

(2) The complaint was that Mr. Mostertz, being a registered medical practitioner, acted as cover to an unqualified person named George W. Johnson, who, purporting to act as his assistant, carried on at the said Noel-park Dispensary a medical practice and who under cover of Mostertz's name, presence, and assistance was enabled to and did attend on and administer medical treatment to patients and carried on such medical practice as though he were a duly qualified and registered medical practitioner.

(3) The complainants were the Medical Defence Union, Limited.

At the conclusion of their deliberations the Council determined: "(1) That the charge against Mr. Julius Mostertz had been proved to the satisfaction of the Council; and (2) that the further consideration of the charge proved against Mr. Julius Mostertz be adjourned until the next session."

The following letter had been received from Mr. Mostertz:

27, Lordship-lane, Wood-green, N.,
Dec. 13th, 1897.

SIR,—I am in receipt of your letter of Dec. 4th, 1897, and beg to inform you that, in obedience to the order made by the Council on Nov. 27th last, I have dispensed with the services of the unqualified assistant forthwith and have discharged him.

As Mrs. Johnson on her part refused to send him away I have judged it to be the wisest course to sever my connexion with the place altogether.

I beg, therefore, to inform you that from to-day I no longer attend at 13, Salisbury-road, but carry on my practice from 27, Lordship-lane, Wood-green, N.

Yours obediently,
JULIUS MOSTERTZ, L.S.A.

Mr. FARRER, solicitor to the Council, said that the Medical Defence Union, who were the complainants in the case, had been communicated with and they had no further complaint to make. They said they had reason to believe that Mr. Mostertz had severed his connexion with the unqualified person.

Mr. MOSTERTZ appeared before the Council and bore out the statements in his letter. He announced that he had changed his address to 78, Lordship-lane and 1, Salisbury-terrace, which was one house, a corner house. He also gave the assurance that he had no intention of employing an unqualified assistant.

The PRESIDENT, after the Council had deliberated in private, intimated to Mr. Mostertz that, relying on the statement in the letter that he had severed all connexion with the people whose names were mentioned in the original complaint and that he had no intention of undertaking any similar association with unqualified persons, the Council had passed this resolution:—

That the Council, having further considered the charge proved against Julius Mostertz, does not judge him guilty of infamous conduct in a professional respect.

The charge, therefore, against him was at an end.

Unqualified Assistants.

Mr. TEALE moved:—

That the petitions and communications relating to unqualified assistants referred to the General Council by the Executive Committee be now referred to a committee for report thereon to the Council during its present session.

The petitions and communications in question were described as follows:—

(*a*) From 339 registered medical practitioners residing in various districts, desiring that special examinations should be held during the present year for unqualified assistants who have gone through a complete medical curriculum and are over forty years of age.

(*b*) From the Mayor of Wisbech, forwarding a petition, stated to be signed by 3449 persons, praying that Mr. Henry Thorns may be reinstated in his position as an unqualified assistant.

(*c*) From Mr. B. E. Reeves, late an unqualified assistant, seeking permission to continue the practice of midwifery under the supervision of his late principal.

(*d*) From a committee of medical practitioners in Leeds, signed by 138 persons, suggesting that the General Council might modify its recent action in regard to unqualified assistants in view of the fact of the difficulty which is being experienced in obtaining the services of a sufficient number of qualified assistants.

(*e*) T. V. de Denne, who represents that he is unable at the present time to procure the services of a qualified assistant either through friends or agents.

(*f*) From Robert Hugh Wilkin, a registered practitioner, Mem. R. Coll. Surg. Eng. 1893, Lic. R. Coll. Phys. Lond. 1893, on behalf of his father, aged sixty-three years, who all his life has been engaged in medical work, having been apprenticed in 1850, and who was prevented from qualifying by the necessity of immediately assisting his father, whose health had broken down. Latterly the petitioner, who has taken a country practice, has employed his father in a perfectly legitimate manner as an assistant, but now finds himself in the painful position of being no longer able to thus assist his father, and owing to the increased expense of engaging someone else to terminate the career of a brother whom he has been supporting during his course at Edinburgh.

(*g*) From C. Dugdale, who is over sixty years of age, and out of employment in consequence of the resolution of the Council, seeking permission to be allowed to continue his work. He was apprenticed to a medical man in Accrington and went through a regular course of study at University College, London, but owing to family circumstances was unable to go up for the examination. He has assisted in one practice for thirty-five years and can produce testimonials as to his efficiency.

(*h*) From Samuel Whitaker, aged thirty-nine years, son of a late medical practitioner, seeking permission to continue his employment. His hospital course at Guy's was interrupted after two or three years by illness, for which he was sent abroad. On his return he completed his course, but, funds failing him, was unable to go up for examination and since then has been acting as an assistant.

(i) From W. P. Thomas, aged forty years, who has acted as an assistant for twenty-two years to leading practitioners in Wales, desiring permission, in order that he may support a wife and family, to commence business as a chemist or be allowed to pass an easy final examination.

(k) A letter from the secretary of the Committee of Medical Practitioners in Leeds requesting that the committee would receive a deputation.

Mr. TEALE said he thought the Council would agree with him that it was very desirable that these various documents should not be discussed until they had been fully considered by a committee. Evidently this was not a question which the Council could put aside as of no moment; it was a question of very great moment to a large number of practitioners throughout the country.

Mr. BROWN, in seconding the motion, said that the resolutions of the Council on this subject had agitated the mind of the profession to an extent which no resolutions he knew of had done. He could not but think that the Council was to some extent to blame for not having laid down a little more decisively its principles in this matter. A large number of medical assistants had been peremptorily dismissed from employment because it was feared that the attendance of an unqualified assistant even upon an emergency case would bring the principal under the notice of the Council. For himself he thought it must be admitted that now and again an unqualified assistant was necessary in dispensary and ordinary surgery work.

Dr. MACALISTER said that while he was prepared to support the motion he thought it a pity that the report should be prepared and drafted and delivered before their eyes before the committee had met.

A suggestion was made that the words "if possible" should be inserted because it was felt by some members that the committee might not be able to report during the present session. Instead, however, of inserting these words the Council decided to delete "during its present session" and with these words deleted the motion was adopted.

Dr. CHURCH, Dr. MACALISTER, Dr. BRUCE, Mr. BRYANT, Mr. BROWN, and Mr. TEALE were appointed to the committee, Mr. TEALE to be chairman.

The Apothecaries' Hall of Dublin.

On the motion of Dr. GLOVER, seconded by Sir DYCE DUCKWORTH, it was agreed to reappoint Dr. Sidney Coupland as Inspector of the Examinations of the Apothecaries' Hall of Dublin.

The Case of George Hamilton Wyse.

The Council then proceeded to the consideration of the case of George Hamilton Wyse of 51, Talbot-street, Southport, Lancashire, registered in Ireland June 27th, 1871, as Lic. Apoth. Hall. Dubl. 1871; Lic. R. Coll. Phys. Edin. 1871; Lic. R. Coll. Surg. Edin. 1871, who on November 25th, 1897, was summoned to appear before the Council to answer the following charges on the complaints of the Medical Defence Union and the Wigan Medical Guild:—

The complaint related firstly to the medical practice carried on under his name at 88, Adelphi-street, Preston, in the county of Lancaster, and secondly to a medical practice carried on under his name at 95, Wallgate, Wigan, in the same county.

1. The charge against him in respect of the practice at 88, Adelphi-street, Preston, was that he covered an unqualified person named George Wyse, who was, or purported to act as, his assistant, and whom he permitted and enabled, under cover of his presence, name, and qualifications, to attend on and administer medical relief to patients and give medical certificates and generally to carry on at the said place a medical practice as if he (George Wyse) were a duly qualified and registered practitioner.

2. The charge against him in respect of the medical practice at 95, Wallgate, Wigan, was that he covered an unqualified person named Cowan, whom he permitted and enabled, under cover of his name and qualifications, to attend on and administer medical relief and treatment to patients and give medical certificates and generally to carry on at the said place a medical practice as if he (Cowan) were a duly qualified and registered practitioner.

The complainants were, in the matter of the covering of George Wyse, the Medical Defence Union, Limited; and, in the matter of the covering of Cowan, the Wigan Medical Guild.

At the conclusion of their deliberations the Council determined: "(1) That the charge made against Mr. George Hamilton Wyse, in respect of the practice at Preston, had been proved to the satisfaction of the Council; (2) that the charge made against Mr. George Hamilton Wyse, in respect of the practice at Wigan, had been proved to the satisfaction of the Council; and (3) that the further consideration of the charges proved against Mr. George Hamilton Wyse be adjourned until the next session."

The following letter had been received from Mr. Wyse:—

51, Talbot-street, Southport, April 7th, 1898.

DEAR SIR,—I beg to inform you that on the 30th of March I disposed of my practice which I had carried on at 95, Wallgate, Wigan, so that now I have no practice there and have not in my employment any assistant whatever.

I will be glad if necessary to submit proofs that this is the case.

I remain, dear Sir, yours faithfully,

GEO. H. WYSE.

H. E. Allen, Esq.,
Registrar of the General Medical Council.

In this case further complaint is made by the Wigan Medical Guild that Mr. Wyse still employs his unqualified assistant. That he had acted contemptuously towards the General Medical Council in not at once complying with their instructions. It was common knowledge to the members of the Guild that the conduct of Mr. Wyse had not materially improved since he was admonished by the General Medical Council and that the unqualified man Cowan still continued to prescribe for and visit patients as formerly. That owing to the fact that Mr. Wyse still resided at Southport, about sixteen miles from his dispensary at Wigan, he had not or could not exercise that control and supervision over his practice which was required by the General Medical Council.

Mr. Wyse appeared before the Council with Mr. Acland, barrister, as his legal representative.

The PRESIDENT pointed out that the case was not now quite on the footing on which it was left last November, because certain additional documents had been received—certain statutory declarations.

Mr. ACLAND said that copies of these documents had been sent to Mr. Wyse. The answers of Mr. Wyse were sent in the first instance to the Medical Defence Union and afterwards to the Wigan Medical Guild, but the Wigan Medical Guild had made no reply and were not represented on the present occasion.

Mr. FARRER and Mr. MUIR MACKENZIE then read the documents to the Council.

In his declaration Mr. WYSE said that on the same day as he appeared before the General Medical Council—namely, Nov. 25th, 1897—he determined to give up his practice at 95, Wallgate, Wigan, and instructed an agent to sell it. No sale, however, was effected until March 30th, when the practice was transferred to a gentleman named Mr. Hamilton. He also informed Mr. Cowan that he could not retain him and notified to him that his engagement must terminate on March 31st. When he did so he warned him that during the currency of the notice he must simply act as a dispenser and must conform to the requirements of the General Medical Council. At the present moment he had no surgery save that at Southport, where he resided, and since March 31st he had devoted the whole of his attention to the work there.

Mr. WYSE entered the witness box and in reply to questions by members said that his son who was mentioned in the complaint had not been associated with him since February of last year. He admitted that Cowan had given a certificate on one occasion, but it was contrary to his instructions and Cowan had been severely reprimanded for what he had done. He had printed forms for certificates, but whenever he gave a certificate he initialled it and Cowan had instructions from him not to use the forms.

Mr. ACLAND submitted that the person who got the certificate from Cowan had been sent for that purpose and no other, and that something more than this was required to justify the Council in taking action against Mr. Wyse.

The Council sat *in camerâ* for a considerable time.

The PRESIDENT thereafter announced that they had judged Mr. Wyse guilty of infamous conduct in a professional respect and had directed the Registrar to erase his name from the Medical Register.

The Case of J. Hamilton Hart.

The Council next proceeded with the consideration of the case of Joshua Hamilton Hart, of Cliff Cottage, Morley, near Leeds, registered in Scotland, December 31st, 1891, as Lic. R. Coll. Phys. Edin. 1891, Lic. R. Coll. Surg. Edin. 1891, Lic. Fac. Phys. Surg. Glasg. 1891, who had been summoned to appear before the Council to answer the following charge on the complaint of Hugh Woods, of 11, Archway-road, Highgate, registered as M.B., M.D., Bac. Surg. 1886, M.A.O. 1887, Univ. Dubl., President of the Incorporated Medical Practitioners' Association:—

That he as a registered medical practitioner had been guilty of infamous conduct in a professional respect in connexion with certain quack remedies which were styled and extensively advertised as "Munyon's Homœopathic Home Remedies." The particulars of the complaint against him were:—

1. That he associated himself with and was a party to the sale and dissemination and advertisement of these quack remedies.

2. That he acted as consulting physician at the place where such quack remedies were administered and sold and permitted his name and qualifications to be advertised as those of the consulting physician at such place.

On the foregoing being read by the REGISTRAR,

Mr. BROWN intimated that as he was a member of the society whose President made the complaint he would take no part whatever in the proceedings.

The PRESIDENT: Very well; I think that should be minuted.

Dr. MACALISTER: The Incorporated Association is not the body prosecuting in this case.

Mr. BROWN: I believe that is so. At the same time I am a member of the body and I shall take no part in the case.

The PRESIDENT: I think that is very proper.

Dr. Hugh Woods, the president of the association, and Mr. Richard Robert More Madden, its secretary, attended in support of the charge. Mr. Hart appeared in answer to his summons, together with his counsel, Mr. W. H. Clay, and his solicitor, Mr. P. E. Vanderpump.

Mr. CLAY wished at the outset to say that he did not think there was any dispute in regard to the facts. But owing to the late period at which Mr. Hart had received the Council's summons, and his solicitor being resident in Bristol, he had been unable to send to the Council an answer to the charge. That he (Mr. Clay) now held in his hand and if the Council wished it he was now prepared to put it in.

The PRESIDENT: I think that will come later.

Dr. WOODS was then asked to proceed. He mentioned that as lately a large number of commercial bodies had been advertising medical remedies the association of which he was President set themselves to inquire to what extent they were *bonâ-fide*. The association had their attention called to Munyon's Homœopathic Home Remedies, the advertisement of which professed to supply a cure for each separate disease, and they resolved to make an official call at the Munyon business premises at 121 and 123, Shaftesbury-avenue, London, with the view of ascertaining what the so-called remedies were. The secretary of the association, accompanied by another person, went to the Munyon offices. There they met the manager of the company and they put to him several questions. They asked him what the nature of the remedies was. The manager could not tell them. The remedies were sent from America from Professor Munyon or the head-quarters in America. The manager, however, mentioned that *Science Siftings* had declared the remedies consisted simply of sugar. He was unable himself to say whether this was or was not the case, but he thought the representatives of the association ought to see the "doctor" who was a qualified man. They were introduced, but the gentleman—it was not Mr. Hamilton Hart—did not appear very much pleased at being interviewed and only on being pressed did he answer the questions put to him as to the nature of the remedies, though the utmost information that could be obtained from him was that they contained vegetable extracts. He appeared to consider it great impertinence that he should be questioned at all and finally he flatly refused to give his name. As a result of the interview it was concluded by the association that there must be something amiss. Having failed to elicit the name of the "doctor" the association, in order to find out whether it was the case that there really was a whole staff of medical men employed at Munyon's adopted other methods of inquiry. They had been told that one or more registered practitioners were connected with the institute and they took steps to get letters addressed to them by seeming patients. The result was that there came into the hands of the association a letter signed by Mr. Joshua Hamilton Hart. That letter was dated Jan. 22nd last, and was written under the decorative heading of Munyon's establishment. It was addressed to a "Rev. and Dear Sir" and set forth that the writer was consulting physician "here" and would be glad to arrange a personal interview on hearing from the correspondent again. The writer of the letter stated that his residence was some miles away from town, but that he should be prepared to meet his correspondent at any hotel he might name. That letter appeared to afford proof that at least one of the "doctors" associated with Munyon's remedies was Mr. Joshua Hamilton Hart. He (Dr. Woods) thought it was unnecessary to prove that the remedies in question were quack remedies. They were advertised in newspapers all over the kingdom and the fact that they professed to be sufficient to cure each separate disease was sufficient for their condemnation by practical men like the members of the General Medical Council.

Mr. MORE MADDEN then gave evidence which confirmed the statement of the case. Witness added that he had been unable to ascertain of what science Professor Munyon was professor. The manager of the institute had said there was a medical man in attendance. He did not say that that man was a registered medical man, but the "doctor" to whom he was presented said he was a medical man registered in this country.

The PRESIDENT: He was not Mr. Hart.

Dr. WOODS said he wished to show that there was a policy of concealment. The "doctor" seen admitted that he was a registered medical practitioner, but declined to give his name, and he thought that went to show that the establishment was a quack affair which could not be recognised by the General Medical Council.

The PRESIDENT: Confine your questions as to what the remedies are.

Witness, in answer to further queries, said he was informed that the remedies were composed of vegetable extracts. As to the cures they had effected he was referred to the testimonials. The Munyon representatives who were seen knew that he and the person with him represented the Incorporated Medical Practitioners' Association.

Asked by Dr. MACALISTER if the so-called manager of Munyon's stated that he had medical men on the premises, witness answered in the affirmative and said that the gentleman to whom they were introduced as the "doctor" stated twice that he was registered in this country, though he refused to give his name or state what his qualifications were.

The PRESIDENT (to Dr. Woods): Have you advanced all the proofs you wish to submit to the Council?

Dr. WOODS: The chief proof is the letter.

Mr. CLAY: I do not deny that the letter was written by Mr. Hart.

The case for the charge was then closed.

Mr. CLAY, in stating the case for his client, said he was not prepared to discuss what were quack remedies. Those in question were homœopathic remedies and as such were outside the cognisance of the Council by statutory provision. What Professor Munyon's qualifications were he did not know, but the Professor—he would use the American appellation—had been certainly fortunate in hitting upon remedies which, according to his view, had conferred benefits on his fellow creatures, and after being successful in America he appeared to have come over here and established a business. And having done so he was extremely desirous that the persons who applied to him should have the best assistance he could procure. Counsel believed it was the fact that the Professor had obtained the assistance of several persons who were qualified as medical practitioners and he should think that in all probability the gentleman who represented himself as a medical man to the witness who had just given evidence was one of those gentlemen. It was only in October last that Mr. Hart was brought into connexion with the Munyon Company. In that month he saw Professor Munyon himself and entered into an engagement with him, which still subsisted, under which he was to attend daily at the offices in Shaftesbury-avenue and examine the very large correspondence which came in from applicants for the cures. The public might be exceedingly misguided in wanting the cures, but it did seem as if there were a large number of people who were anxious to try any strange or unusual remedy offered to them, and they apparently derived satisfaction from using it. Mr. Hart was employed to see what these applicants said. A large number of persons wrote describing their symptoms and asking for remedies and he (counsel) as a layman should say that it was a very reasonable action on the part of Professor Munyon to try to get a competent person to examine these letters. Mr. Hart's duty was to examine these letters and report. He made an endorsement on each letter as to the kind of cure which it was desirable to send. He did not know if Mr. Hart went on the principle that he should recommend what did the least mischief or that which should do the most good. Mr. Hart had to examine the letters and suggest what answers should be sent and according to his endorsement on the letters the cures were sent. But Mr. Hart had nothing to do with that. Where remedies were not sent and replies to correspondents were sent the latter were

typewritten and signed on behalf of the company. Mr. Hart's name did not appear, and so far as Mr. Hart knew nobody knew that any practitioner was engaged in doing the work which Mr. Hart was doing. Mr. Hart was in no way or degree responsible for the advertisements. As to the specific charge, that of being consulting physician to the Munyon Institute, the term used in the letter produced was an unfortunate term. It would have been better if Mr. Hart had abstained from using it. The letter was written really in his private capacity and was meant to explain how that to which it was an answer had come into his hands. He had no intention of suggesting that the Munyon remedies should be associated with the name of a registered medical practitioner. So far as the particular instance in question went Mr. Hart wished through him to express regret and to give the undertaking that he would not make public his connexion with the Munyon Company.

Mr. HART then submitted himself to examination. In answer to Mr. CLAY he said he was brought into communication with Professor Munyon by advertisement and met the Professor at the Hotel Cecil, where he entered into the engagement with him. He attended at the Munyon Institute daily. His duties consisted of reading the letters that arrived and writing on them what from the symptoms described he assumed to be the organ affected. If the description was insufficient he wrote on the letters words to the effect and advised that a question paper should be forwarded to the writers. His name never appeared in the correspondence. He was paid a weekly salary for the work he did. He had nothing whatever to do in connexion with the advertisements. He could not say that he had ever read one of them and he did not know whether they were drawn up at Shaftesbury-avenue or in America. So far as he knew his name had never been connected with Munyon's remedies except in two cases, one the letter produced, and the other where, writing in his private capacity, he offered to receive a patient into his private residence. The letter, to which that of Jan. 22nd was a reply, professed to come from a curate at Bristol suffering from a disease of a private nature and seeking a night interview after a church meeting he was to attend because he could not get away for a consultation during the daylight. Witness had replied out of sympathy with the writer. He was perfectly willing to undertake that he would not write in the same way again. As in the case of the advertisements he had nothing whatever to do with the remedies.

In cross-examination Mr. HART admitted that he was consulting physician to the institute in so far as that was to be inferred from the duties he discharged. He had practised at Cliff Cottage, Morley, but it was through Munyon's that he received the Council's summons. Asked if he had the degrees Bachelor of Medicine and Master of Arts, as he used the abbreviations for those degrees at the end of the letter produced, he said that the "M.B., M.A." following his signature in the letter stood for "Member of the British Medical Association." Questioned as to whether he was a member of that association he replied that he had been but his subscription had not been paid for this year or last. Asked if it was the fact that there were medical men other than himself associated with the institute he said he did not know.

How do you know that Professor Munyon is not yourself?—Because I profess to be Joshua Hamilton Hart.

In answering a question by the PRESIDENT Mr. HART said he went to Edinburgh in 1878 and he claimed to be an old schoolfellow of Sir William Turner.

The PRESIDENT: I do not recollect you.

Replying to further questions by members of the Council Mr. HART stated that he did not prescribe except where a special prescription, apart from Munyon's remedies, was asked for. He knew nothing about the nature of the remedies. If people were examined in Munyon's Institute that did not take place in his department. He did not know if there was any other qualified man on the premises. The remedies were issued in accordance with what he wrote on the letters. He supposed it was the secretary who despatched them. So far as Mr. Hart knew the secretary was not a qualified man.

Do you regard yourself then as helping an unqualified man in prescribing or advising people as to what remedies they should take for certain diseases?—I never looked at it in that light at all.

You say you are consulting physician?—It was a very stupid expression that.

You take patients into your house?—Yes, medical and surgical.

Questioned as to whether he had any address Mr. Hart explained that letters would reach him if sent to Cliff Cottage. At present he was staying in an hotel. Till Saturday last he had a house at Hampton Wick and was going into one on Saturday, the 28th, in the Regent's Park district.

The Council then deliberated in private for from ten to fifteen minutes and it was resolved:—

(a) That the Council do proceed at once to pronounce its judgment on the case. (b) That the charge made against Mr. Joshua Hamilton Hart has been proved to the satisfaction of the Council. (c) That the Council do now judge Mr. Joshua Hamilton Hart to have been guilty of infamous conduct in a professional respect and do direct the Registrar to erase from the Medical Register the name of Mr. Joshua Hamilton Hart.

Strangers and Mr. Hart having been readmitted the PRESIDENT announced the decision of the Council.

The Council adjourned.

FRIDAY, MAY 27TH.

The Council resumed to-day, Sir WILLIAM TURNER presiding.

The Council and Mr. Gladstone's Funeral.

The PRESIDENT intimated that he had received a letter from the office of the Earl Marshal saying that the limits of space made it impossible to offer admission to the Council to Westminster Abbey on the occasion of the funeral of Mr. Gladstone. Therefore there were no tickets either for the President or any of the members of the Council.

Dr. MCVAIL moved:—

That it be remitted to the Executive Committee to take the steps that may be necessary to secure that the General Medical Council shall receive due recognition and representation in national functions and ceremonies.

There could be little doubt, he said, that this unfortunate refusal to recognise the Council was due simply to the circumstance that the Council had never taken any steps to hold its proper position in national ceremonies in the past and he was quite sure that the matter only required to be brought to the notice of the Government or the departments of the Government which had to do with State ceremony to be put right. It certainly must look to the profession and the public an extremely singular circumstance that the President of this Council, the only person who could be recognised as the official head of the whole profession of the United Kingdom, did not receive, whatever might be the case of the other members of the Council, an invitation without any application whatever, as a matter of right to be present at the great national ceremonial such as this ordered by Her Majesty the Queen.

Dr. HERON WATSON asked whether on the occasion of either of the Jubilee celebrations any recognition of the Council took place.

The PRESIDENT said he believed there was no recognition.

Dr. PHILIPSON seconded Dr. McVail's motion.

Mr. CARTER said he thought the Executive Committee might perfectly well accept the responsibility which this motion proposed to put upon them and suggested that the course for them to pursue would be to make application through the College of Arms and the Earl Marshal that the Council might have proper recognition and a definite precedence.

The motion was then agreed to.

The Bust of the late Sir Richard Quain.

The PRESIDENT said that the bust of Sir Richard Quain, presented by his daughters, was now in the council chamber. He gathered from what he had heard in more than one quarter that the bust was really modelled in order that it might be presented to the Council, that the late President had it in his mind when he sat for the bust that it should have its home with them, and he knew that the daughters of Sir Richard Quain were greatly pleased that it should find its home with the Council. There was no special legacy, but these ladies gave the bust to the Council because it was their father's intention that it should come to them. He proposed:—

That the hearty thanks of the General Medical Council be given to the daughters of Sir Richard Quain, baronet, for their valuable and most acceptable gift of a bust in marble of their father, the late esteemed and respected President.

It would be left to the treasurers, Sir Dyce Duckworth and Mr. Bryant, to arrange where the bust should be placed.

Medical Aid Associations.

Dr. GLOVER presented the following interim report from the Committee on Medical Aid Associations, viz. :—

The Committee have had under their consideration at various meetings memorials to the General Medical Council on the subject of medical aid associations or medical institutes, especially those from Norwich, Yarmouth, and Beckenham. They have endeavoured, by correspondence and conference with the memorialists and with officers of the "institutes," to ascertain the causes of friction and complaint in connexion with these bodies with a view to their removal and they are not without hope of some success. They acknowledge with pleasure the readiness of all parties to help in the elucidation of the subject. They are still engaged in such endeavours and are as yet unable to present more than an *ad interim* report. Their investigations so far confirm the conclusions of the committee of 1893 as to the evils incident to the present system of working such institutions which, when composed of *bond fide* members of friendly societies and managed on sound principles, are entitled to, and have always received, the friendly consideration of the medical profession.

Pending their final report the committee would venture to suggest to all concerned—managers, their medical officers, and members of the medical profession generally—a suspension of judgment on questions in dispute and the use of local efforts to adjust differences in a spirit of conciliation.

He asked the Council to receive the report and enter it on the minutes. He might tell the Council that the committee had had a second interview with the committee representing the friendly societies. They met in that chamber and there was a disposition upon both sides very seriously to try to find out some way of meeting the objections of the profession and removing the causes of complaint. The representatives of the friendly societies told them that they would not have an opportunity for a few months of bringing the facts of the case before the bodies, so that necessarily the settlement of the question must stand over for the present. He would, however, ask the Council to be assured that there was a disposition on their part as well as on the part of the committee to set at rest all matters of difficulty and to come to a harmonious settlement with this Council as representing the profession. The questions submitted to the committee were essentially ethical questions and to these questions they had not decided upon a formal answer; they wished to see first whether the thing of which complaint was made could not be mended.

Mr. TEALE seconded the motion.

Mr. BROWN called the attention of Dr. Glover and the committee to a report of the proceedings at the annual meeting of the Coventry Provident Dispensary, where the question of a wage limit was discussed, and appealed to these gentlemen not to allow dust to be thrown in their eyes by any mere verbal alteration of rules.

Dr. BRUCE repudiated the idea of any of the managers of the friendly societies attempting to throw dust in their eyes; they had met them in an open, frank, and gentlemanly manner and were entirely disposed to discuss the question in the most liberal light.

Sir RICHARD THORNE expressed doubt about the last sentence in the report, saying that he thought it required revision.

Mr. HORSLEY said this sentence seemed like a piece of parental advice to many of the practitioners in the country and he was afraid it might be misunderstood. His view was that it was not really required.

Dr. GLOVER said he did not think the sentence could do any harm. Some of the memorialists from Norwich and Yarmouth were disposed to think that they could by local effort settle these matters, and there was surely no reason why they should not try. As to parental advice, he thought there were occasions when this Council might indulge in it. The point really at issue raised by these memorials was the refusal of all professional intercourse with the members of these societies. Was the Council, was Mr. Horsley, prepared to give the sanction of the Council to that blank refusal at this stage of the proceedings?

Mr. HORSLEY replied that he had not the means of deciding that question in the absence of the report of the committee on the subject.

Dr. GLOVER said he had all the means possessed by the committee. Was he prepared at this stage of the negotiations—altogether friendly at present—to recommend that this Council should advise the men of Norwich and Yarmouth to refuse to meet in consultation in any urgent circumstances, in any case, the members of these societies?

Mr. HORSLEY said he was a member of the Council and had certain responsibilities as such. Before he became a member of the Council he held very strong views upon this subject and he did so still. But now that he was here and a committee had been appointed to consider the question he was suspending his final judgment until he saw the report of the committee. Until he received the report he was not prepared to answer any such question as that now addressed to him.

Dr. GLOVER, accepting this view of the situation, said that all the committee asked was that the members of the profession should also suspend judgment.

Dr. MCVAIL took exception to the construction of the last sentence.

The PRESIDENT said that he thought that all those who attended the conference would appreciate the reference to the use of local efforts to adjust differences. He did not think he ever attended a meeting where there were two opposite parties brought into personal contact with each other with a view to the exchange of opinions which produced so strong an impression upon him as this meeting with the five gentlemen representing some of the greatest friendly societies in the country. These gentlemen interchanged their views with the committee with the greatest freedom and he was satisfied; without any pressure they stated plainly what they thought friendly societies could do and what they thought they could not do. He appealed to members of the committee who were present whether they did not show a strong desire that the questions in dispute should be amicably settled and a strong conviction that they could be so settled. He would suggest that a good thing to do might be to leave out the words "a suspension of judgment on questions in dispute and."

This suggestion was at once accepted by Dr. Glover and the words having been deleted the report was received and entered in the minutes.

Dental Education and Examination.

Mr. BRYANT presented the following final report by the Dental Education and Examination Committee :—

In November last, when the third report of the committee "was brought before the Council, it was remitted to the committee to draw up their recommendations in the form of a series of propositions, each dealing with a single subject, in order that the Council might be enabled in May to come to a definite decision on the questions before them."

This has consequently now been done and it is to be hoped that this report in its present shape will be found to be both intelligible and satisfactory to this Council.

The committee have also to report that the dental curriculum, as now brought before you, has received the support of all the dental schools (except Manchester and Dublin, which have not yet spoken), as witnessed by the petitions which are appended to this report, and in which the petitioners express an opinion that it is undesirable to reduce the present scope of the curriculum and examination in general subjects, which they regard as a minimum necessary for the satisfactory qualification of a dental surgeon.

RECOMMENDATIONS OF THE DENTAL EDUCATION AND EXAMINATION COMMITTEE.

The Dental Education and Examination Committee, in accordance with the Council's Resolution of November 30th, 1897 (Minutes, vol. xxxiv., p. 158), beg leave to present their Recommendations to the Council in the following revised form. If these are adopted by the Council they may be at once issued for the guidance of the Licensing Bodies and of Candidates for Licences in Dentistry or Dental Surgery.

RECOMMENDATIONS AS TO THE COURSE OF STUDY AND EXAMINATIONS TO BE REQUIRED OF CANDIDATES FOR LICENCES IN DENTISTRY OR DENTAL SURGERY.

A. Preliminary Examination and Registration.

1. That every dental student shall, at the commencement of his studentship, be registered in the manner and under the conditions prescribed for medical students.

2. That no person shall be registered as a dental student who has not previously passed one of the preliminary examinations in general education recognised by the Council, unless before July 22nd, 1878, he commenced professional study by apprenticeship to a dentist entitled to be registered or by attendance on professional lectures.

B. Professional Study.

3. That every candidate for a licence in dentistry or dental surgery shall be required to produce certificates showing:

(1) That he is at least twenty-one years of age.

(2) That he has been registered as a dental student.

(3) That he has subsequently to the date of registration been engaged in professional study for at least four years.[1]

(4) That he has attended courses of instruction in the following *general subjects* at a recognised medical school: (*a*) [2] Chemistry and physics (with practical laboratory work) for six months; (*b*) Human anatomy for six months; (*c*) dissections (with demonstrations) for twelve months; (*d*) physiology for six months (with practical laboratory work or a separate course of practical physiology); (*e*) principles of surgery (including the elements of surgical pathology) for six

[1] Not more than one year of *bond fide* apprenticeship to a registered dentist, if served subsequently to the date of registration, may be reckoned as a portion of the four years of professional study required.

[2] This instruction may be obtained at the science school recognised by the licensing body.

months; (*f*) principles of medicine (including the elements of general pathology) for six months; (*g*) clinical surgery and clinical medicine (at a recognised general hospital) for twelve months.

(5) That he has attended courses of instruction in the following special subjects at a recognised dental school: (*a*) dental anatomy and physiology, human and comparative (with practical work and demonstrations in dental histology), for [three] months; (*b*) dental surgery and pathology for [three] months, including materia medica and therapeutics applicable to dental surgery; (*c*) dental metallurgy (with practical work and demonstrations) for [three] months; (*d*) dental mechanics) with practical work and demonstrations) for [three] months.

(6) That he has for two years attended the practice of a recognised dental hospital or of the recognised dental department of a general hospital.

(7) That he has, before or after registration as a dental student, received for three years[3] practical instruction in mechanical dentistry from a registered dentist or in the mechanical department of a recognised dental school and hospital.

C. Professional Examinations.

4. That the examinations for a licence in dentistry or dental surgery shall be partly written, partly oral, and partly practical, and shall include the following subjects: (*a*) chemistry and physics; (*b*) practical examination in dental mechanics and metallurgy; (*c*) dental surgery, pathology, and therapeutics; (*d*) practical examination in dental surgery; (*e*) general anatomy and physiology;[4] and (*f*) general surgery.[4]

5. That the prescribed subjects of examination may be combined or distributed at the discretion of the licensing bodies and may be taken at two or more successive examinations during the course of professional study, provided that no candidate shall be admitted to any final examination in dental surgery and mechanical dentistry until he shall have completed the required four years' course.

Communications from Dental Schools as to the Extent of the Curriculum

22A, Cavendish-square, W., Feb. 1st, 1898.

DEAR MR. ALLEN,—I have the pleasure to send with this note petitions upon the subject of the "general side" of the Dental Curriculum from a very large number of the dental hospitals (with schools) in Great Britain.

I hope that such an expression of opinion may help both the Dental Education and Examination Committee and also the General Medical Council in arriving at a conclusion upon the subject of dental education.

The Victoria Dental Hospital of Manchester will send their petition direct to you.

I also send with this a letter from the Dean of the Newcastle School saying that the staff of that hospital prefer not to sign such a petition.

It is only fair that the Council should know that the Newcastle Dental School have been in existence as a recognised dental school for a short period of time only.

When Manchester has returned its petition all the English Schools will have expressed their opinion. Edinburgh and Dublin have not yet answered my letter sending them the petition to sign; if they are sent to me I will forward them to you at once.

Yours truly,
MORTON SMALE.

(1) *From the Dental Hospital of London.*

To the GENERAL MEDICAL COUNCIL.—We, the undersigned, being, as Deans and Teachers of Dental Schools, fully conversant with the requirements of the Dental Student, in order that he may obtain a range of knowledge sufficient to enable him intelligently to practise his profession, are strongly of opinion that it is undesirable to reduce the present scope of curriculum and examination in general subjects, which we regard as a minimum necessary for the satisfactory qualification of a dental surgeon.

STORER BENNETT,
Chairman of Medical Committee, Dental Hospital of London;
MORTON SMALE,
Dean Dent. Hosp. of London.

Signed also by 26 other members of the staff of the hospital.

Petitions in identical terms were also forwarded from the following dental hospitals:—

(2) From the National Dental Hospital of London.
Signed by 19 members of the staff.
(3) From the Dental School, Guy's Hospital.
Signed by 18 members of the staff.
(4) From the Dental Hospital of Liverpool.
Signed by 12 members of the staff.
(5) From the Dental Hospital of Birmingham.
Signed by 14 members of the staff.
(6) From the Dental School of Edinburgh.
Signed by 7 members of the staff.
(7) From the Dental Hospital of Glasgow.
Signed by 15 members of the staff.

The following is the communication referred to by Mr. Smale as forwarded to him by the staff of the Newcastle Dental School:—

9, Eldon-square, Newcastle-on-Tyne, Jan. 14th, 1898.

DEAR MR. SMALE,—At a meeting of the teaching staff of the Newcastle-on-Tyne Dental Hospital and School held last evening, at which your letter of the 5th with enclosed petition was read, the following resolution was passed: "That having read the petition sent by Mr. Morton Smale, and having discussed the report of the General Medical Council meeting, we are of opinion that the question of the dental curriculum should be left to the Dental Education and Examination Committee as suggested by Dr. MacAlister in his amendment."

I am, yours truly,
R. W. MARKHAM,
Dean of the Newcastle-on-Tyne Dental Hospital and School.

[3] No portion of this instruction which is anterior to the date of registration shall be reckoned as a portion of the four years of professional study required.

[4] It is recommended that a synopsis of the scope of the examination in these subjects be issued by the licensing bodies.

Mr. BRYANT reminded the Council that this subject was started on May 26th, 1894, when the Council decided upon the appointment of an inspector who should visit and report upon the examinations of the four bodies granting qualifications in dentistry and when Mr. Tomes was appointed inspector. He should like to take this opportunity of congratulating Mr. Tomes on his appearance among them as a member. It was the first time the Council had included a representative of dental surgery and he thought they would all agree that it was high time such a representative existed and he personally felt grateful that Mr. Tomes was here now, because he would be able to assist the committee very much.

The Council decided to go into committee for the consideration of the recommendations in the report.

Sir RICHARD THORNE said he would like to know what the committee meant by a "dental surgeon." He had always understood that a dental surgeon was a surgeon who was a dentist, but he could not find the term in any Act of Parliament.

Dr. MACALISTER said that a dental surgeon was a person entitle to practise dental surgery under the Dentists Act.

Mr. HORSLEY suggested they should adhere closely to the Act and substitute for "dental surgeon" the word "dentist."

The PRESIDENT pointed out that the Act spoke of a Licentiate in dental surgery or dentistry.

After some further discussion it was agreed that the term used throughout the report should be "dental practitioner."

The first recommendation was adopted without debate.

The second was also adopted, but it was agreed to add a footnote explaining that the examinations in question were those recognised by the Council for admission to the Students' Register.

Coming to the third recommendation the Council approved Sections 1, 2, and 3. To the fourth section they added the words, "for at least the period specified."

The Council then proceeded to deal with Subsection A.

Dr. MCVAIL said that this proposal would occasion difficulty in Scotland because there chemistry and physics were taught in separate classes. In fact, he felt certain that the proposal would be unworkable in Scotland.

Mr. HORSLEY suggested that though the subjects might be taught in separate classes the student might take both classes during the same session.

Dr. REID said that would not be possible in the case of Aberdeen.

Dr. PETTIGREW insisted that the proposed arrangement would handicap very much the Scottish student.

Dr. MACALISTER pointed out that in this matter the Council were only recommending what was to be regarded as the minimum amount of study.

Mr. TICHBORNE, seconded by Dr. PETTIGREW, moved that the sub-section read thus:

Chemistry, theoretical and practical course, six months; physics, three months.

This amendment was lost.

Sir CHRISTOPHER NIXON, seconded by Sir WILLIAM THOMSON, moved that it read:—

Physics, a three months' course; chemistry, a six months' course of theoretical chemistry and a three months' course of practical chemistry.

This amendment was also lost and thereafter the original motion was put and carried.

The further consideration of the recommendations was postponed.

Prosecutions.

The Council sat for the rest of the day *in camerâ*, the business under consideration being a report by the solicitor in regard to the prosecutions directed by the Council last November.

SATURDAY, MAY 28TH.

The Council met again to-day, Sir WILLIAM TURNER presiding.

Sir JOHN BATTY TUKE made his appearance at this sitting, much to the pleasure of his fellow members, nearly all of whom tendered him their congratulations.

The Charge against Mr. H. K. Hunter.

The first item on the programme of business was the following notice of motion in the name of Mr. BROWN:—

(*a*) That a copy of the information laid against Mr. H. K. Hunter, the report of the legal advisers of the Council thereon, and copies of all correspondence with Mr. Hunter relating to the charges made against him be presented to the Council and entered on the minutes.

(b) That all legal expenses connected with any proceedings that may be necessary to obtain the opinion of the superior courts as to the legality of Mr. Hunter's conviction at the Caxton petty sessions in April last for describing himself as a physician and surgeon be defrayed by the Council.

(c) That the Council vote Mr. Hunter a sum sufficient to defray any law costs he may have incurred in defending himself in the proceedings taken against him by the Council.

Mr. BROWN said that in deference to the opinion expressed by Mr. Muir Mackenzie while the Council was sitting *in camerâ* he would ask leave to withdraw these motions at the present time.

Leave being given, the motions were accordingly withdrawn.

Proceedings in camerâ.

For nearly three hours the Council sat *in camerâ* and when the public were readmitted,

The PRESIDENT announced that petitions for admission to the Dentists' Register had been received from A. P. Merrill, T. E. Bush, E. L. Oldfield and W. E. Royce, and the Council had decided not to accede to the petitions; that with regard to a charge made against Isaac Cohen it had been decided that no further proceedings be taken in the case; and that Mr. H. E. Allen had been reappointed General Registrar.

The Council then adjourned until Monday.

MONDAY, MAY 30TH.

The Council met again to-day with Sir WILLIAM TURNER in the chair.

Saturday's Proceedings.

The minutes contained the following references to the proceedings *in camerâ* on Saturday, viz.:—

(a) Certain of the recommendations of the Penal Cases Committee as to prosecutions were adopted; (b) a prosecution which was suggested by a member was agreed to; (c) attention was called by a member to the practice of unqualified persons obtaining registration under the Companies Act, and trading as apothecaries, physicians, and surgeons; and (d) a communication was read from the Apothecaries' Society of London in regard to its powers of restoring names to its list of Licentiates.

The minutes also stated that the following communication had been received from the solicitor of the Apothecaries' Society of London, viz.:—

Society of Apothecaries, London, E.C., May 25th, 1898.

Sir,—The names of the two Licentiates erased by the Society and restored to their list after the Medical Council had restored them to the Register are David Hyman Dyte and Neville Holland: the first restored in June, 1893, and the second in December, 1896. This will enable the Registrar approximately to find the dates when they were restored to the Register.

As permitted by you, I place my views in writing on the subject of erasure by the Society:—

1. The Society cannot cancel or get back a diploma because it has no statutory power to do so.

By its Amendment Act, 1874, it can only erase a name in the case of "infamous conduct in a professional respect" *after* the Medical Council has erased the name from the Medical Register. If a Licentiate has been convicted of a crime the Society can act on its own motion.

2. When a name has been erased because the Medical Council has first struck it off the Medical Register it may be assumed that (a) the Society would not restore it unless under the special direction or advice of the Medical Council, and (b) that it would expect the Council to tell the Society what conditions must be imposed in the matter of examination before the name was restored.

3. Referring to what Mr. Muir Mackenzie says in his opinion as to the statutory right of the Council to restore a name, this would equally apply to the Society. He, however, adds that "the erasure from the list of Licentiates of the Apothecaries' Society involves 'the loss of the qualification entitling' the person to be registered."

If this be so, does not a serious question arise whether the Society, without requiring the person to pass a qualifying examination, can restore a name once erased from its list?

I venture to repeat that in my opinion fresh legislation is required.

Your most obedient servant,

JAMES R. UPTON.

Sir William Turner,
President of the General Medical Council.

Proposed Amendment of the Companies' Act.

Mr. TOMES asked if the Council would allow the resolution arrived at *in camerâ* in respect to a deputation to the Board of Trade to be entered on the minutes. As it stood now the resolution was confidential and therefore there was difficulty in acting upon it.

The Council agreed to the request.

The PRESIDENT intimated that the resolution was to this effect:—

Resolved that the President, Mr. Tomes, and Mr. Horsley be a committee to take such steps as they deem most effective to induce the Government to insert a clause in the Companies' Acts Amendment Bill now before Parliament with the object of procuring the registration of companies to carry on medical, surgical, and dental practice.

That resolution was arrived at on Saturday and it would now appear on the minutes. He might mention that he had written a letter to the Secretary of the Board of Trade intimating to him that a deputation had been appointed and asking that the President of the Board might receive the deputation.

Penal Cases.

Mr. CARTER, seconded by Sir JOHN BATTY TUKE, moved:—

That no case of complaint should be considered by the Penal Cases Committee until a statutory declaration as to the facts of the case has been supplied by the complainant.

Mr. CARTER said that it had been repeatedly the experience of the Penal Cases Committee that charges of a character which probably could not be sustained had been brought by medical practitioners against their neighbours and when inquiries were made the persons making the charges said they did not want their names to appear and were not prepared to give a statutory declaration to the committee. In this way the time of the committee had been taken up with the consideration of letters of a very unsatisfactory character behind which there was nothing to substantiate the charges made.

The motion was agreed to, with the addition of words providing that the Executive Committee give effect to the resolution in the standing orders with reference to penal cases.

Dental Curriculum and Examinations.

The Council then went into Committee to consider further the recommendations of the Dental Education and Examination Committee as to the course of study and examinations to be required of candidates for licences in dentistry or dental surgery.

Mr. BRYANT, the chairman of the committee, expressed the hope that the Council would proceed a little more rapidly than they did on Friday. In none of these recommendations was there any suggestion to interfere with the schemes of education which the four licensing bodies were enforcing. All they did was to lay down general principles for their guidance. He moved the adoption of sub-section *b* of Section 4 of the recommendations—namely, "human anatomy for six months."

Dr. BRUCE moved:—

That the words in Sections 4 and 5 of the report of the Dental Education and Examination Committee fixing particular periods for the courses of instruction specified after line 8, p. 7, Appendix I., be deleted, and that the subjects of professional study and examination be drawn up upon parallel lines to those for professional examination for medical students and become the requirements of the General Medical Council for candidates for licences in dentistry or dental surgery.

In his opinion, he said, it was quite unnecessary to name any particular time for the courses and it seemed to him that the Council would be following a much wiser course if they went upon the same lines as they did with the medical student.

Dr. LEECH seconded this amendment.

Dr. MCVAIL said he had intended to move to remit the report back to the committee that they might consider and report as to how far the medical and surgical examination of dental students should correspond to the education and examination required in the case of medical students. He thought the time had come to consider what was to be the real position of the dentist in the future. Was the dentist still to be a man of inferior medical and surgical training with a few specialisms? or was he to have knowledge such as the members of the medical profession had, with dental knowledge in addition? His own impression was that the time had now come when the dentist ought to be a surgeon, when he ought to have a knowledge of surgery as complete as the person going into the practice of the profession in the ordinary way. He thought the dental profession ought to be elevated and ought no longer to consist of men who had an imperfect education in medicine and surgery. Although they had a separate Register, dentists were, after all, members of their profession and he was glad to think that other members of this Council were beginning to take this position.

Dr. MACALISTER insisted that Dr. McVail's position was one of simple obstruction; he wished to smash the whole scheme.

Dr. MCVAIL objected to this description of his position. He had thought this matter out very carefully and he had seen the difficulties of the committee. They were endeavouring to reconcile two things which were irreconcilable. His hope was to see the dental profession put upon a proper footing and its members become worthy colleagues of their surgical brethren.

The PRESIDENT announced that the latter portion of Dr. Bruce's amendment had been altered to read, "and that the subjects of professional study and examination be specified as in the recommendations for the professional education of medical students and become the recommendations of the General Medical Council for candidates for licences in dentistry or dental surgery."

Sir RICHARD THORNE said he could not agree to this. What he contended was that they ought to draw an absolute line between the surgeon who practised dentistry and the licentiate in dentistry. As for these recommendations of the Dental Committee they were a direct inducement to the dentist to pretend that he had had a medical education. He would give an example of what he meant. A gentleman came over from a distant part of this empire—a gentleman with a good deal of information about diplomas—and he consulted a dentist in one of the west-end squares. One day when he went to him he was not feeling well and he incidentally explained his symptoms. The dentist whom he was addressing referred to the symptoms and added, "You know I am a doctor." The gentleman said, "I was not aware of that." He replied, "What I mean is that I have had to go through a complete medical education." About these recommendations he would like to point out that they required of these candidates that they should go through a six months' course in the principles of medicine and that they should be occupied in a course of clinical medicine in a recognised general hospital for twelve months, and yet—one would hardly believe it—the committee did not deem it necessary that the candidates should be asked one single question in medicine. A greater anomaly he had never heard of in the course of his life. His idea would have been to eliminate these subjects and devote the time thus saved to purely dental work.

Mr. TOMES said that this was no new subject to the dental profession and it had been decided that a purely dental education would not meet the case. It had been equally recognised that a purely medical training did not make a good dentist. He sympathised with Dr. McVail in his desire to see the dentists of this country fully-qualified medical practitioners who had added to that a dental education. Some day he hoped that might be practicable, but he did not think it was practicable at the present moment. As to what Sir Richard Thorne had said, he could give him many instances of the great desirability of the dentist possessing medical knowledge. The dentist frequently was the person who had the earliest opportunity of recognising malignant and other diseases. As to the existing curriculum, practically speaking, under it some 1600 people had been educated and the net result had been exceedingly good. The dentists of to-day, as a whole, were on a different plane in respect of education and attainments from the dentists of former days, and he did not think the Council would be wise if they put aside the practical results of experience. He did not think that the evil Sir Richard Thorne had in his mind had happened. He did not think that the dental licentiate had poached, or had shown the smallest disposition to poach, upon medical practice. He did not think that he had shown the smallest disposition to pose as a fully-qualified medical man. He had never heard of an instance of the kind. It was not the person who had received an education which taught him the limits of his own knowledge who sought to pose as a fully-qualified medical man; it was the person who had not received that education. It was the educated man who would at once seek the advice of the medical practitioner and it was the uneducated man who would seek to keep the case in his own hands.

In reply to a question addressed to him by Mr. CARTER

Mr. TOMES said that every day in the practice of a dentist the knowledge of general pathology came in. Hardly a day would pass if the dentist was in a large practice without his seeing and having to form an opinion upon a case which was on the borderland where he hardly knew whether the trouble was local or constitutional.

Dr. MACALISTER, speaking to the subject immediately before the Council—namely, the amendment of Dr. Bruce—said that in recommendations as contrasted with requirements it was possible to go into considerable detail, and the detail was much more necessary in the case of the dental than of the medical student. As to the general question, he thought it was all to the advantage of dentists as a profession that they should have the range of their education extended.

After some further debate Dr. Bruce's amendment was negatived.

On the suggestion of Mr. BRYANT sub-sections *b* and *c* were made one sub-section and as such they were approved by the Council.

Sub-section *d* was approved without debate and with the initial words "principles of" deleted. Sub-section *e* was also approved.

On Sub-section *f*

Sir CHRISTOPHER NIXON said that there was nothing in Ireland to fit in with this recommendation.

The PRESIDENT said the chairman of the committee ought to tell the Council whether these courses were to be attended in a dental or a medical school.

Mr. BRYANT: In a medical school.

The PRESIDENT said if that were so then they must be adapted to the courses given in the medical school and it appeared that they were not so adapted.

Mr. BRYANT submitted that they were quite consistent with the present practice. The dental student was asked to attend the ordinary course given to the medical student, but the committee did not wish to emphasise that he was to get up the practice and the treatment of disease; they desired him to learn the principles as embodied in these lectures. If he could get up a little knowledge of practice so much the better for him, but they did not for a moment suggest a special course for his benefit.

Sir RICHARD THORNE moved as an amendment:—

That since the Dental Committee deem it unnecessary to require candidates for the licence in dentistry to undergo any examination whatever in medicine, the requirement that they shall attend a course of at least six months upon medicine and a course of clinical medicine in a general hospital extending over a period of at least twelve months be eliminated from the regulations.

Sir JOHN BATTY TUKE seconded the amendment.

On a vote being taken the amendment was negatived by 15 to 11 votes.

The sub-section with the words "principles of" deleted was then approved.

Mr. BRYANT moved sub-section *g* in this form: "Clinical surgery and medicine at a recognised general hospital for twelve months."

Dr. MCVAIL spoke of this as a sham and a burlesque of medical education and moved to leave out medicine altogether.

Sir CHRISTOPHER NIXON seconded the amendment.

This amendment was negatived, as was also another amendment, moved by Dr. MCVAIL, and thereafter the motion proposed by Mr. Bryant was agreed to.

The Council now reached Section V. and after passing the general statement in this form: "That he has attended courses of instruction in the following special subjects at a recognised dental hospital for at least the period specified," it passed sub-section *a* as proposed in the report.

Sub-section *b* was amended so as to read "dental pathology and surgery with materia medica and therapeutics applicable to dental surgery for three months." Sub-section *c* was passed as proposed in the report.

Sections VI. and VII. were also passed as proposed in the report.

Coming to the Professional Examinations the Council passed sub-sections *a* and *b*, but altered sub-section *c* so as to read "dental anatomy, physiology, pathology, surgery, with materia medica and therapeutics as applicable to dental surgery." Sub-section *d* was passed in its original form; sub-section *e* was made to read "human anatomy and physiology"; and sub-section *f* was made to read "principles of surgery and medicine in their application to dental surgery."

In the last recommendation an alteration was made to make it read "may be taken at two or more successive stages during the course of professional study."

The Council then resumed and Mr. BRYANT moved that the Council confirm the resolutions passed in committee.

This motion was after a short debate agreed to.

The recommendations as finally approved were in the following form, viz.:—

RECOMMENDATIONS AS TO THE COURSE OF STUDY AND EXAMINATIONS TO BE REQUIRED OF CANDIDATES FOR LICENCES IN DENTISTRY OR DENTAL SURGERY.

A. Preliminary Examination and Registration.

1. That every dental student shall at the commencement of his studentship be registered in the manner and under the conditions prescribed for medical students.

2. That no person shall be registered as a dental student who has not previously passed one of the preliminary examinations in general education recognised by the Council unless before July 22nd, 1878,

he commenced professional study by apprenticeship to a Dentist entitled to be registered or by attendance on professional lectures.

*** See Regulations of the General Medical Council in regard to the registration of medical and dental students.

B Professional Study.

3. That every candidate for a Licence in Dentistry or Dental Surgery shall be required to produce certificates showing—(1) that he is at least twenty-one years of age; (2) that he has been registered as a dental student; (3) that he has subsequently to the date of the registration been engaged in professional study for at least four years[5]; (4) that he has attended courses of instruction in the following general subjects at a recognised medical school for at least the period specified: (*a*) Chemistry and Physics (with practical laboratory work for six months); (*b*) human anatomy for six months and dissections (with demonstrations) for twelve months; (*c*) physiology for six months (with practical laboratory work or a separate course of practical physiology); (*d*) surgery (including the elements of general pathology) for six months; (*e*) medicine (including the elements of general pathology) for six months; (*f*) clinical surgery and medicine (at a recognised general hospital) for twelve months. (5) That he has attended courses of instruction in the following *special subjects* at a recognised dental school for at least the period specified: (*a*) dental anatomy and physiology, human and comparative (with practical work and demonstrations in dental histology), for three months; (*b*) dental pathology and surgery with materia medica and therapeutics in their application to dental surgery for three months; (*c*) dental metallurgy (with practical work and demonstrations) for three months; (*d*) dental mechanics (with practical work and demonstrations) for three months; (6) that he has for two years attended the practice of a recognised dental hospital or of the recognised dental department of a general hospital; (7) that he has, before or after registration as a dental student, received for three years practical instruction in mechanical dentistry from a registered dentist or in the mechanical department of a recognised dental school and hospital.

*** No portion of this instruction which is anterior to the date of registration shall be reckoned as a portion of the four years of professional study required.

C. Professional Examinations.

4. That the Examinations for a Licence in Dentistry or Dental Surgery shall be partly written, partly oral, and partly practical, and shall include the following subjects: (*a*) chemistry and physics; (*b*) practical examination in dental mechanics and metallurgy; (*c*) dental anatomy, physiology, pathology, surgery, with materia medica and therapeutics in their application to dental surgery; (*d*) practical examination in dental surgery; (*e*) human anatomy and physiology[6]; (*f*) principles of surgery and medicine in their application to dental surgery.[7]

5. That the prescribed subjects of examination may be combined or distributed at the discretion of the licensing bodies and may be taken at two or more successive stages during the course of professional study, provided that no candidate shall be admitted to any final examination in dental surgery and mechanical dentistry until he shall have completed the required four years' course.

The PRESIDENT congratulated the Council on having got through this important and difficult work.

The Council then adjourned.

TUESDAY, MAY 31ST.

The Council resumed work to-day with Sir WILLIAM TURNER again in the chair.

The Dental Committee and the Two Scottish Licensing Bodies.

Mr. BRYANT made an explanation with regard to certain proceedings at the last session in connexion with the suggestion in the report of the Dental Committee that the Royal College of Surgeons of Edinburgh and the Faculty of Physicians and Surgeons of Glasgow should unite and form one Conjoint Board for Scotland.

Dr. HERON WATSON and Dr. MCVAIL made statements on the same subject.

The PRESIDENT, in closing the incident, said it appeared to him plain that the two bodies in Scotland through their representative men had inquired into the question and had come to the conclusion that there was no power in the Dentists Act to enable them to make the combination.

Disciplinary or Penal Powers of Qualifying Medical Authorities.

Mr. BRYANT, on behalf of the Executive Committee, submitted a fourth report on the disciplinary or penal powers of the qualifying medical authorities. He said that the report contained pretty well all which had taken place on the subject and was thoroughly up to date. The committee's report on the communications they had received contained the following:—

Further communications on this subject have been now received from the Scottish universities and the President having referred them in May, 1898, to the sub-committee for consideration the sub-committee have pleasure in reporting that a considerable advance has been made. The four Scottish universities have been working together by means of a joint committee, and the universities of Edinburgh, Glasgow, Aberdeen, and St. Andrews have informed the Council in almost identical terms that they are of opinion that it is impossible for the Scottish universities to obtain penal and disciplinary powers over graduates from the Privy Council, nor could they ask such powers from Parliament without making them applicable to graduates in all faculties; that they are desirous of assisting the General Medical Council in preventing medical practitioners convicted of crime, or of professional misconduct, from continuing the practice of their profession; but in such cases an inquiry into each case would have to be instituted, for which neither the University Court nor the Senate is, by its constitution, well fitted. Consequently they suggest that Section 40 of the Medical Act of 1858 might be so amended as to prohibit the use of a university degree by a medical graduate whose name had been removed from the Register. The inquiry into the professional misconduct of any accused person would thus be left in the hands of the General Medical Council, and in cases in which names were removed from the Medical Register under Section 29 medical graduates could no longer use the titles of which they were formerly possessed.

The following was the report of the Joint Committee:—

REPORT BY JOINT COMMITTEE OF THE SCOTTISH UNIVERSITIES APPOINTED TO CONSIDER THE QUESTION OF PENAL AND DISCIPLINARY POWERS OVER GRADUATES, OF DATE 5TH MARCH, 1898.

The Joint Committee were of opinion that it is impossible for the Scottish Universities to obtain penal and disciplinary powers over graduates from the Privy Council and that the universities could not ask such powers from Parliament without making them applicable to graduates in all the faculties. The only profession which has suggested that such powers should be obtained is that of medicine, and in cases of professional misconduct on the part of graduates of medicine a kind of inquiry would be rendered necessary, for which neither the University Court nor the Senatus is by its constitution well fitted.

On the other hand, the committee were of opinion that medical degrees in some respects stand in an exceptional position and that it is desirable to aid the General Medical Council in more effectually preventing medical practitioners whose names have been removed by them from the Register, either on account of crime or of professional misconduct, from continuing to practise their profession under cover of the degrees obtained from the Scottish universities.

The committee, therefore, resolved unanimously that their several courts be recommended to intimate to the General Medical Council that they would be prepared to support any proposal made by the Council to obtain from Parliament an amendment of Section 40 of the Medical Act, 1858, so as to prohibit any medical graduate of a university from continuing to take or use the name or title appropriate to his degree after his name had been erased from the Register by the General Medical Council under Section 29 of the Medical Act, 1858, and so long as such erasure continues in force. At present the penalty enacted by Section 40 applies to the false assumption of a medical title, but there seems no good reason why it should not be extended to the case of a man who, although he retains his degree, has, by the erasure of his name from the Medical Register, ceased to be a "duly qualified medical practitioner" in the sense of Section 34 of the Act. The adjudication of professional misconduct and its consequences would thus be left entirely in the hands of the proper authority—that is, the General Medical Council—without the necessity of any further inquiry by bodies largely non-medical and the possibility of a different conclusion being come to by them.

The conclusion of the Executive Committee on the subject was:—

As the disciplinary powers of the twenty qualifying bodies vary vastly and the views of those bodies differ widely as to the expediency of their seeking for more powers than they now possess the conclusion seems to be clear that this Council must take the matter into its own hands either by adopting a suggestion which was embodied in a report of this committee received by the Council in May, 1896, and supported by a carefully considered opinion of Mr. M. Muir Mackenzie, which is appended, or by acting on the suggestion of the Scotch Universities, as set out on page 10 of this report, and so amend Section 40 of the Medical Act as to prohibit the use of a University degree by a medical graduate whose name has been removed from the Register. If the latter measure is thought by the legal advisers of this Council to be expedient it seems to this committee to be the best and soundest one to adopt: for the prohibition of the use of any medical title, whether of a University or otherwise, by anyone who has had his name erased from the Medical Register for infamous conduct, would be a simple and effective action.

He had thought it desirable to take the legal advice referred to and on the Scottish Universities' suggestion Mr. Muir Mackenzie, as legal adviser to the Council, had given the following opinion:—

The facts which have been elicited in prosecutions which have taken place during the last two or three years disclose a very serious mischief arising out of the defective condition of the law. The report recommends that it would be desirable that each qualifying medical authority should in future have power, if it sees fit, to erase from its list or roll of Licentiates or Members the name, and cancel, recall, or suspend the diploma of any Licentiate or Member whose name has been erased from the Medical Register after an inquiry held under Section 29 of the Medical Act, 1858, and should also have power to replace on its lists or roll of Licentiates or Members the names and restore the diploma of any Licentiate or Member whose name after erasure from the Medical Register has been by order of the General Medical Council replaced on that Register. In my opinion the proposal to confer these powers on each of the medical authorities, if carried out by the necessary legislation, would effect a very beneficial change in the law and be very useful in its operation. I would add that the necessary legislation could be effected by a very short and simple Bill to be submitted to Parliament.

In conclusion Mr. BRYANT moved:—

That the President be requested to communicate with the Lord President of the Privy Council as to the practicability of obtaining such an amendment of the law as would more effectually prevent the

[5] Not more than one year of *bond fide* apprenticeship to a registered dentist, if served subsequently to the registration, may be reckoned as a portion of the four years of professional study required.

[6] This instruction may be obtained at a science school recognised by the licensing body.

[7] It is recommended that a synopsis of the scope of the examination in these subjects be issued by the licensing bodies.

holder of a medical diploma or degree from using the title thereof after his name has been erased from the Medical Register under Section 29 of the Medical Act, 1858, and so long as the erasure continues in force.

Dr. MACALISTER seconded the motion, inserting the words "more effectually" in order to meet an objection by Mr. HORSLEY that the proposal was in contradiction to a resolution of Council to take on a test case in the High Court of Justice.

The PRESIDENT (to Mr. Horsley): Do I understand that you hold that the law does not need amendment?

Mr. HORSLEY: Yes. The test case has not been heard. It certainly has not been withdrawn.

Dr. MACALISTER pointed out that the attitude the Council were now asked to assume was that held at the time he joined the Council some twelve years ago.

Dr. GLOVER wished to emphasise the fact that it had been held it was the respective bodies who ought to get the powers in question, but now it was proposed to relieve these bodies and throw the responsibility on the General Medical Council. He hoped the Council would not commit itself to any such proposal as that now before it.

Sir CHRISTOPHER NIXON regarded the suggestion of the legal adviser as a very happy solution of the difficulty which existed on the subject. But he thought the first step which ought to be taken upon it was to ascertain whether the qualifying bodies would consent to have degrees conferred by them removed by the General Medical Council.

The motion was agreed to.

Direct Representation.

Mr. GEORGE BROWN had given notice of the following motion:—

That in the opinion of the Council, in view of the large increase in the number of registered practitioners residing in the United Kingdom, the time has come when it would be expedient to confer upon them the power of returning an increased number of Direct Representatives to the General Medical Council, as provided for in section 10, sub-section 1, paragraph C of the Medical Act of 1858, and that representations be made to the Privy Council accordingly.

He said that the last time a similar motion was before the Council was in 1891, when 5 members voted for it and 21 against it. But of these 21 only 12 now sat at the Council and owing to the infusion of new blood he thought the time had arrived to revive the proposal. Since he placed it on the notice paper the resolution had been received with a great deal of favour, but it had been represented to him that at such a late period of the session it would be undesirable to bring the proposal forward. In deference to this view he now asked leave to postpone the motion till the November session.

The leave asked for was granted.

A Sweeping Proposal.

Mr. BROWN had also given notice of his intention to move:—

(*a*) That Standing Order 7, relating to the Executive Committee, be and is hereby repealed, and that the duties of the Executive Committee be in future discharged by the branch councils. (*b*) That the Standing Order 9, relating to the appointment of committees on education, examination, public health, dental education and examination, students' registration, and penal cases, be and is hereby repealed. (*c*) That the duties of the committees referred to in Standing Order 9 be in the future discharged by the branch councils.

The PRESIDENT wished to say that if carried these three proposals would practically revolutionise the whole of the proceedings of the Council. He wished to know if Mr. Brown had a seconder.

Mr. BRUDENELL CARTER: The Executive Committee is a statutory committee.

Mr. BROWN was not at all satisfied to delegate the Council's powers to the Executive Committee and the experience of this session and last convinced him that some change in their procedure was necessary. They had sat two days this session at a cost of 300 guineas to correct mistakes made by the Executive Committee, and he thought that the time had come when there ought to be introduced a new mode of conducting their business.

The PRESIDENT: Do you withdraw the proposals?

Mr. BROWN: Yes, meantime.

Dr. MACALISTER: Because there is no seconder.

The Dentists Act and the Duties of the Executive Committee.

Mr. HORSLEY moved that Standing Order No. 15, Chapter VII., which was, "The Executive Committee shall carry out generally the provisions of the Dentists Act in accordance with the Council's resolutions," should be rescinded. He maintained that the Medical Act did not empower the Council to impose upon the Executive Committee the duties they had been undertaking.

Mr. BROWN seconded the proposal.

On a division 9 members voted for the motion and 8 against, 13 declining to vote.

The PRESIDENT: It is a pity that so many members have not voted.

Dr. GLOVER: I declined to vote because Mr. Muir Mackenzie is not here.

Dr. MACALISTER: I voted against it because I did not think a case had been made out.

Dr. MCVAIL: I did not vote because I did not understand the question.

The PRESIDENT: The abstention from voting is most unfortunate.

Eight Notices.

On the motion of Dr. LOMBE ATTHILL, seconded by Mr. TEALE, it was agreed to refer to the Executive Committee for consideration and report the following eight notices of motion standing in the name of Mr. Horsley:—

That the following be added to the Standing Orders, Chapter IX., to follow Standing Order No. 7: "Each committee shall be convened by the chairman of his own motion or by the requisition of any two members of the committee."

That the Penal Cases Committee shall be included among the other committees to be annually appointed in May under Standing Order No. 8, Chapter IX.

That in Standing Order No. 5, Chapter IX., the following shall be a new sub-section: (iv.) The Penal Cases Committee shall meet at least once a month.

That the sentence "as and when approved by the President" in sub-section *a* of Standing Order No. 3, Chapter XIV. (p. 24), be and is hereby rescinded.

That in Standing Order No. 5, Chapter XIV., after the word "offence" the Order shall read, "the matter shall be referred to the Committee of Penal Cases."

That in Standing Order No. 6, Chapter XIV., for the word "solicitor" shall be substituted the words "General Registrar," and that with regard to Appendix A, p. 31, the letter scheduled therein shall be signed by the Registrar to the General Medical Council.

That Standing Order No. 8, Chapter XIV., shall read as follows: "When any answer, evidence, or statement is forwarded or application made by the accused person between the date of the issue of the notice and the day named for the hearing of the charge copies thereof shall be immediately sent by the Registrar to each member of the Penal Cases Committee."

That in Standing Order No. 9, Chapter XIV., for the word "President" shall be substituted the words "Penal Cases Committee."

A Legal Opinion.

On the motion of Mr. HORSLEY, seconded by Dr. BRUCE, it was formally agreed to enter on the minutes the opinion obtained from Mr. Muir Mackenzie about the President's right to prohibit Mr. Horsley's access to Council documents such as Mr. Horsley said he had enjoyed up till April 7th.—Dr. MACALISTER explained that it was not customary to place counsel's opinion on the minutes unless there was a demand to do so.

The Public Health Diploma.

Sir WILLIAM GAIRDNER called attention to diversities of interpretation given at different places to the regulations of the General Medical Council with reference to the course of study for a diploma of public health. He said that since he came to London to attend the meetings of this session of the Council he had received communications from a very excellent man, a high authority on the matter, showing that there was a sad want of uniformity in regard to outdoor sanitary study. The Council's requirement was that every candidate for a diploma must produce evidence of his having during six months studied practically the duties connected with outdoor sanitary work. His correspondent showed that in cases what was demanded was attendance at the sanitary office daily for five days a week, while elsewhere the attendance required was only one hour on Saturday, and only occasional Saturdays came in. What he wanted to know was what was the meaning of "practically." He moved that the consideration of the matter should be remitted to the Public Health Committee.

Mr. TICHBORNE seconded.

Mr. TOMES said it would be a new order of procedure to lay down exactly what a qualifying body was to do. It was for the qualifying bodies themselves to determine. The Council said that such and such an amount of study was requisite, but they left it to the bodies to determine what the amount of attendance should be. The Council were surely not going to say how many hours a man must study. If they once began to attempt it—and he saw a tendency in that direction during the discussion of the dental recommendations—they would be placing themselves in an awkward position, which would be bad for education generally because the qualifying bodies understood the matter better than the General Medical Council did.

The PRESIDENT pointed out that there was a difference

between the relation of the Council to public health and its relation to other subjects. The statement that in one place daily attendance for five days a week was required for out-door sanitary study, while in other places an occasional Saturday was deemed enough, was a matter to which he really thought the Public Health Committee ought to have their attention drawn.

Sir RICHARD THORNE, chairman of the Public Health Committee, said this matter came before the Council because of a magnanimous Scotch medical officer who was willing to give instruction on five days a week without charging for it. English officers could not do that. He hoped the Council would not order an inquiry because it would not only be difficult to make but would raise other very important questions which the Council would have to deal with as the result.

On a division the motion was carried by 13 votes to 7.

Unqualified Dentist Assistants.

The next business was consideration of the following communication from the British Dental Association, referred by the Executive Committee to the General Council, as to the issue of a notice to dentists in regard to the employment of unqualified assistants:—

British Dental Association, 40, Leicester-square, London, W.C., Feb. 12th, 1898.

DEAR SIR,—Certain members of the dental profession who possess medical qualifications have received an important notice from the Medical Council as to the employment of unqualified persons and assistants. On behalf of the British Dental Association I beg to submit that the time has arrived when a somewhat similar notice as regards "covering" might be sent to all dentists or that the notice issued to the dental profession by the Medical Council in 1893 might be repeated. The notice of 1893 was found to be of much service in helping to check the spread of the practice of "covering," as members of the executive of this association have reason to know; and it is felt that the issue of another notice at the present moment would, as a preventive measure, be most opportune and saving of both time and money to the Council in the investigation and consideration of future cases.

As a minor matter I might remind you that Mr. Miller utilised the opportunity of coupling with the 1893 warning notice a means for further correcting the address entries of dentists in the Register. I shall feel obliged if you will bring this request to the notice of the Executive Committee at the earliest moment.

I am, dear Sir, yours truly,
W. B. PATERSON,
Hon. Secretary of the British Dental Association.

To the Registrar of the General Medical Council.

On the motion of Dr. MACALISTER, seconded by Mr. TOMES, this communication was referred to a committee consisting of the members of the Dental Committee for consideration and report.

Administration of Anæsthetics.

Consideration was next given to the following communication, referred by the Executive Committee to the General Council, from the Dundee and District Branch of the British Medical Association as to the administration of anæsthetics by registered medical practitioners for unregistered dental practitioners—a practice which in the opinion of the Executive Committee is most reprehensible:—

Annfield House, Dundee, March 10th, 1898.

Covering Unregistered Dental Practice:

DEAR SIR,—I have been asked by the Council of this branch to ask you whether the recent notice issued by the General Medical Council will extend to the case of a registered medical practitioner who by administering anæsthetics for dental operations by persons not registered under the Dental Acts gives countenance to this most objectionable form of practice. If the question has not yet been considered you might bring it under the notice of the General Medical Council at its next meeting. I have been corresponding with Mr. Robertson and he has referred me to you.

I am, yours sincerely,
H. E. Allen, Esq. R. C. BUIST, M.D., Hon. Sec.

On the motion of Mr. BROWN, seconded by Dr. BRUCE, this communication was referred to the same committee as that to which the British Dental Association's letter had just been committed.

Mr. TOMES pointed out that the question raised in this case was a much wider one and any decision come to in connexion with it must rule in the case not only of dentists but also medical practitioners.

The PRESIDENT, before calling for the next business on the printed programme, pointed out that in dental matters they were placed now in a difficulty by their adoption of Mr. Horsley's proposal to prevent the Executive Committee from generally administering the Dentists Act. Unless they set up machinery equivalent to that which had existed hitherto all communications on dental matters must come direct to the Council in future.

Dr. MACALISTER thought that communications on dental business relating to matters other than such as pertained directly to the statutory Dental Committee might go to the Executive Committee so as to allow the latter to prepare the business for the Council.

A motion to this effect was thereupon agreed to.

Tropical Diseases.

Sir JOHN BATTY TUKE, as chairman of the Education Committee, submitted the following report on a communication from the Colonial Office regarding special instruction in Tropical Diseases in medical schools:—

The following communication from the Colonial Office has been forwarded by order of the President to the Education Committee for consideration and report:—

Downing-street, March 11th, 1898.

SIR,—In an address (a copy of which is enclosed) delivered at St. George's Hospital at the opening of the Winter Session on Oct. 1st last Dr. Manson, who is now the medical adviser of this Office, urged the necessity for special education in tropical medicine in the medical schools of this country.

2. This is a matter in which Mr. Chamberlain is much interested, as he is anxious to do everything in his power to extend the benefits of medical science to the natives of the tropical colonies and protectorates and to diminish the risk to the lives and health of those Europeans who as Government officers or private employés are called upon to serve in unhealthy climates.

3. He feels confident that if some scheme can be devised by which it can be ensured that all the medical officers selected by the Secretary of State for appointments in the tropics shall enter on their careers with the special knowledge requisite for dealing with those diseases which are especially prevalent in tropical climates, great benefit will result to Europeans and to natives alike.

4. At present there is no arrangement by which officers selected for medical appointments in the Crown colonies and protectorates receive instruction in tropical medicine before taking up their duties, and in consequence the greater number of these officers possess at the commencement of their service only the crudest knowledge of the diagnosis and treatment of tropical disease, though they may by the exigencies of the service be placed at once in responsible positions where such a knowledge would be of the highest importance.

5. Mr. Chamberlain is at the present time endeavouring to make arrangements for giving to colonial medical officers some such clinical instruction in tropical medicine as is given in Netley and Haslar in the case of medical officers of the army, navy, and Indian Medical Services.

6. Even if such an arrangement is eventually arrived at the conditions of the colonial service will scarcely admit of the officers being kept under instruction for more than three or four months; it is therefore desirable that they should have some preliminary knowledge of the subject so that they may derive the greatest possible benefit from their clinical opportunities during this short course.

7. So far, then, as this department is concerned Mr. Chamberlain would be glad if any scheme could be arranged by which an opportunity for special instruction in tropical disease could be offered to the student by the medical schools of this country and would be prepared to support it by selecting preferably for colonial medical appointments those candidates who could show that they had studied this branch of medicine, especially if some certificate or diploma to that effect were forthcoming.

8. Mr. Chamberlain would point to the fact that the War Office, Admiralty, India Office, and Foreign Office are interested in this matter and that, as Dr. Manson states, rather over a fifth part of the medical graduates of Great Britain and Ireland practise in warm climates, or being in the army and navy may be called upon at any time to do so.

9. Mr. Chamberlain has consulted these departments and finds that they share his views as to the desirability of extending the teaching of tropical medicine in the British medical schools and he would ask the General Medical Council to give the matter their earnest and favourable consideration.

10. A similar letter has been addressed to the leading medical schools of this country. I am, Sir, your obedient servant,
C. P. LUCAS.

The President of the General Council of Medical Education and Registration of the United Kingdom.

The Committee have given the foregoing communication their earnest attention at two meetings and beg leave to report to the Council thereon as follows:—

They share the conviction expressed by Mr. Chamberlain that it is highly desirable that medical men who propose to practise in hot climates should have opportunities for the special study, theoretical and practical, of tropical diseases. But they are not of opinion that this desirable end would be attained by means of a recommendation, emanating from the Council, to the effect that such special study should be made obligatory on all candidates for a licence to practise. To be effective it is necessary that every course of instruction in these diseases should include clinical demonstrations and observation of actual cases. In few of the medical schools in the United Kingdom can such clinical instruction be provided; and merely to add a short course of theoretical lectures to those that are already given on the subject in connexion with the usual systematic courses on general medicine would serve no good purpose.

The committee believe, however, that if the resources of such institutions as Haslar or Netley were made available for the instruction, not only in tropical medicine, but also in tropical hygiene and climatology, of qualified practitioners selected for colonial medical appointments, the efficiency of this branch of the public service would be materially increased. At such central institutions the teachers would naturally be selected for their skill and experience in this special branch of practice; the cases for clinical demonstration would be at hand as they cannot be in ordinary general hospitals; and the candidates under instruction, having already obtained their medical qualifications, would be free to give their undivided attention to the special study in question. It would, moreover, be an advantage if the facilities for

genuine and efficient study thus provided were thrown open under proper conditions to other medical practitioners who propose to practise in tropical countries. Certificates or diplomas which might be granted by the authorities of such institutions to medical practitioners who had completed a satisfactory course of study would have a real value as evidence of special qualification. But the committee do not think that this could be said of diplomas granted to medical students possessing only the preliminary and theoretical knowledge contemplated in paragraphs 6 and 7 of the above communication.

The committee accordingly recommend that the Council inform the Secretary of State for the Colonies that, while the Council is not prepared to recommend that tropical medicine should be made an obligatory subject of the ordinary medical curriculum, it deems it highly desirable in the public interest that arrangements should forthwith be made by the Government for the special instruction in tropical medicine, hygiene, and climatology of duly qualified medical practitioners who are selected for the Colonial Medical Service or who otherwise propose to practise in tropical countries.

Sir JOHN BATTY TUKE moved the adoption of this recommendation.

Dr. MACALISTER, deputy chairman of the committee, and who presided at the meeting at which the report was agreed to, seconded the motion.

Mr. CARTER thought the Seamen's Hospital at Greenwich should be mentioned.

Sir WILLIAM THOMSON objected to mention being made of any particular institution and it was only because Netley and Haslar were named in the Secretary of State's letter that they were named in the report. The Council were not asked to name any school and it was not for the Council to suggest what were the schools at which information of the kind in question was to be obtained. In making the recommendation they had made the committee were keeping within their proper limits.

The motion was agreed to.

Recognised Preliminary Examinations.

Sir JOHN BATTY TUKE submitted the following interim report from the Education Committee on the revision of the list of recognised preliminary examinations :—

The Education Committee have been engaged in collecting evidence as to the standard of the various preliminary examinations with a view to the revision of the Council's list, which they propose to report upon at the November session. Much, however, remains to be done and the list cannot be brought into its final form until a date near to the end of the year. Inasmuch, however, as by Resolution 2 of the Council, adopted on November 28th, 1897, the revised list is to come into force on Jan. 1st, 1899, the notice that can be given to the various educational bodies and to intending candidates will of necessity be very short. Representations as to the inconvenience of this have reached the committee from several quarters, and these representations appear entitled to the consideration of the Council. The committee would remind the Council that their original proposal was that the revised list should come into force on Jan. 1st, 1900, and they now accordingly recommend as follows :—

That notwithstanding the Council's resolution of Nov. 29th, 1897, the revised list of preliminary examinations to be submitted by the Education Committee at the November session do not come into force until Jan. 1st, 1900.

He moved the adoption of this recommendation, mentioning that it simply asked for extension of time by a year.

Dr. MACALISTER, in seconding, said that the list would be ready by November; but it was thought that a month was too little to allow after its appearance and therefore the committee reverted to the originally proposed date, 1900.

The motion was agreed to.

Finance.

Mr. BRYANT, chairman of the Finance Committee, submitted the following report :—

The Finance Committee reports that the income of the General and Branch Councils for the year ending December 31st, 1897, was £7942 18s. 4d., but that the expenditure for the same period, having been £10,761 1s., exceeded the receipts by £2818 2s. 8d., as against an excess of £1526 18s. 10d. last year. From Table A it will be seen that the fees received by the Branch Councils were considerably less than last year, as £557 7s. 6d. less was received from that source in England, £254 10s. less in Scotland, while Ireland alone shows a small increase of £32 5s., making a total decrease of £779 12s. 6d.

The items of increased expenditure are shown on Table B, and among these may be specified the following :—(a) An increase of £404 8s. 1d. for the British Pharmacopœia, occasioned by the further necessary expenditure in the production of the new book. (b) An apparent increase of £451 17s. 11d. in salaries, caused by the vote of £1000 as an honorarium to the late Registrar. (c) An increase of £172 18s. 1d. in law expenses, due chiefly to counsel's fees in the appeal by the Apothecaries' Hall of Dublin to the Privy Council. (d) An increase of £60 2s. 1d. on account of the interest due on the mortgage entered into by the General Council, the amount having been increased from £20,000 in 1896 to £22,507.

On the other hand decreased expenditure has to be noted: (a) in fees paid to the General Council, £343 15s. 2d., the Council having sat for one day less than the previous year; (b) in miscellaneous printing, £352 5s. 5d.; (c) in inspection and visitation of examinations, £65 2s., owing to the termination of the series of inspections.

Though there are still some payments to be made on account of the Pharmacopœia it may be expected that as the whole of the issue will probably be sold within a short time, seeing that of the Pharmacopœia of 1885 13,500 were sold in the first four months and 22,300 in the first sixteen months, not only will the whole of the expenditure be refunded but a considerable profit will be shown.

The additional expenditure of an exceptional nature (£2507) incurred during the year in the alteration of the Council office is excluded from the total normal expenditure of the year, as otherwise comparison with previous years would be rendered difficult. One of the appended tables shows assets of the three branch councils and the dental fund at the close of the last three years respectively, from which it will be seen that they have decreased owing to the large contributions which have been required by the General Council, the English branch assets having decreased by £1605 7s. 7d., the Scottish by £629 7s. 9d., and the Irish by £287 5s. 8d. The dental fund shows an increase of £823 4s. 9d. It should be remembered, however, that the British Pharmacopœia being now completed and published there will not only be an end to the demand upon the branch funds on account of its expenses, but that the £3583 that has been locked up during the production of that work will be received back by the General Council, removing the necessity for any large demands on the branches for the next few years.

The question of establishing a sinking fund for the repayment of the loan of £20,000 from the English Branch Council should be considered by the Council.

This may be done either by the annual deposit of a sum of money at the Bank of England and the investment of capital with its interest, so that a capital sum would be secured at a fixed period, or by making an annual payment to a sound and established insurance company.

An inquiry at the Bank of England as to the best method to adopt elicited a letter from the manager, in which he informs the committee that it would probably be more advantageous for the Council to arrange the matter with some first-class insurance office than to do so with the Bank of England, both on the grounds of cheapness and simplicity. Under these circumstances it seems best to your committee that this advice should be followed, and your committee have to advise that by making an annual payment of £172 10s. to the Alliance Insurance for fifty years the sum of £20,000 would be realised.

By means of this fund the whole of the debt of the General Medical Council would be wiped out and the Council would have its freehold buildings rent free, and this would be done by the payment of a sum of money every year which would hardly be felt by the Council.

The question of raising the Oxford-street building another storey should also be entertained, for more committee rooms and a room for the President are much wanted.

It was agreed, on the motion of Mr. BRYANT, seconded by Dr. BRUCE, that the suggestion contained in the report as to the sinking fund should be referred to the several branch councils for consideration and report to the General Council and that the President and treasurer should be empowered to obtain plans and estimates for the addition of another storey to the present offices at 299, Oxford-street, they to report to the Council.

The PRESIDENT mentioned that he had brought the matter of want of accommodation before the executive. During the few weeks he had held office he had felt the inconvenience which arose from there being no room for the President, who if he had to meet members had to use the Council chamber itself, the luncheon-room, a committee-room, or it might be the stairs. He did not think it right that the President should be in that position.

Dr. MACALISTER, who pointed out that the resolution committed them to inquiry only, said that owing to their committees having become not only more numerous but more active, more committee rooms, as well as a President's room, had become absolutely urgent.

Mr. HORSLEY urged that the finance report should contain tabular statements of the Council's liabilities and assets and should show the actual legal expenditure more clearly than the account first submitted did.

The Dublin Apothecaries' Hall.

Mr. BRYANT, as chairman of the committee appointed to secure a successor to Mr. Arthur Chance, read the following report :—

The Committee recommend the Council to appoint Mr. H. G. Howse, of 59, Brook-street, Grosvenor-square, London, M.S. London, F.R.C.S. of England, surgeon to Guy's Hospital, and late examiner in surgery at the College of Surgeons and at the University of London, assistant examiner in surgery at the Apothecaries' Hall of Ireland, and inspector on behalf of the Medical Council, "to secure at the examinations of the Apothecaries' Hall the maintenance of such standards of proficiency in medicine, surgery and midwifery (under the provisions of the Medical Act, 1886, Sec. 5, Clause 2) from candidates at such qualifying examinations, and to have such powers and perform such duties in the conduct and inspection of those examinations as this Council may from time to time by order prescribe, and to secure that such examination shall be deemed a qualifying examination within the meaning of the Medical Act, 1886.

He moved :—

That Mr. H. G. Howse, M.S., F.R.C.S., be appointed an assistant examiner in surgery at the examinations of the Apothecaries' Hall, Dublin, in the room of Mr. Arthur Chance, resigned, and that the duties and conditions of his appointment be the same as those relating to the appointment of Mr. Chance.

Dr. HERON WATSON having seconded, the motion was agreed to.

Fines under the Medical Acts.

On the motion of Sir DYCE DUCKWORTH, seconded by

Mr. HORSLEY, the following interim report was received and entered on the minutes:—

The Committee on Fines under the Medical Acts has to report that at a meeting held by them on March 4th, 1898, they directed that a statement, based on the report of the committee that met in 1891, should be forwarded to Sir Edward Bradford and that he should be requested to receive a deputation on the subject. In answer to this communication the Council was informed by the Commissioner of Police on March 24th, 1898, that the matter was receiving his careful consideration and that he was in communication with the Secretary of State for the Home Department on the subject and in answer to a further inquiry made by the Registrar on May 17th he stated that a decision had not yet been arrived at.

The Executive Committee.

A ballot for the election of the Executive Committee, which consists of the President *ex-officio*, four members representing the English Branch Council, two the Scottish, and two the Irish, resulted in the return of Sir Dyce Duckworth, Mr. Bryant, Mr. Brudenell Carter, Dr. Glover, Dr. Heron Watson, Sir William Gairdner, Dr. Lombe Atthill and Sir Philip Smyly. Sir William Gairdner, who takes Sir William Turner's place, is the only new member on the committee.

Mr. HORSLEY thought the Council ought to revert to the old custom of annually delegating powers to this committee. He proposed "That the powers and duties delegated in accordance with the Standing Orders as amended in the present session to the Executive Committee be vested in the committee until the next May meeting of the General Medical Council."

Sir CHRISTOPHER NIXON seconded and Mr. BROWN supported the motion.

The PRESIDENT thought the Council should abide by the resolution of 1887.

Dr. MACALISTER pointed out that no harm had resulted from working under the resolution just referred to.

On a division the motion was rejected by 18 votes to 5.

The Pharmacopœia.

Mr. BRUDENELL CARTER, seconded by Dr. LITTLE, moved that the report of the Pharmacopœia Committee be received and entered on the minutes. This, which was a lengthy one, will be printed in our columns next week, when we shall finish our report of this session.

Medical News.

THE annual dinner of the Members of the Royal College of Veterinary Surgeons took place on June 1st at the Hôtel Cecil under the presidency of Professor Penberthy.

MEDICAL MAGISTRATE.—The Lord Chancellor has appointed Dr. John J. Lynch of Walsall a Justice of the Peace for that borough.

BY the will of Mr. Edward Mackeson, who died in March last, the Royal Asylum of St. Anne's Society, the Surgical Aid Society, and the Association for Promoting the General Welfare of the Blind, will each receive a third share of £100,000.

PRESENTATIONS TO MEDICAL MEN.—Mr. F. M. Blackwood, M.B. Durh., M.R.C.S. Eng., of Summerhill, Sydney, New South Wales, has been the recipient from the Sterling Lodge, No. 18, Independent Order of Oddfellows, of an illuminated address.—Mr. Joseph Park, M.B., Ch.M. Syd., of Helensburgh, New South Wales, has been entertained at a public banquet by the inhabitants of Helensburgh and presented with an illuminated address.—Mr. W. H. O'Neill, M.B., Ch.M. Edin., late of Narrandera, New South Wales, was entertained at a public banquet on leaving the district and was presented with a gold watch and chain. The watch bore a suitable inscription.—On March 25th last Mr. F. J. Drake, M.B., Ch.B. Melb., on his retiring as surgeon superintendent of the General Hospital, Launceston, Tasmania, was presented with several medical works by the medical staff and a spirit lamp by the present and past nurses.—On the occasion of Mr. William A. Rutherford, M.B, C.M. Edin., resigning the post of house surgeon at the Durham County Hospital, which he had held for about three years, he received presentations from the nurses of the institution and other friends as marks of esteem.—On May 27th Mr. C. Thiselton D. Urquhart, M.B., C.M. Aberd., of Aberdeen, was entertained at dinner in the Imperial Hotel by many of his medical brethren on his leaving the city.

DERMATOLOGICAL SOCIETY OF GREAT BRITAIN AND IRELAND.—The annual meeting of this society was held at 20, Hanover-square, on May 26th, when the retiring President, Dr. J. F. Payne, delivered a valedictory address. He then introduced the new President for the session 1898-99, Dr. Radcliffe Crocker, who read a paper dealing mainly with the influence on treatment of a proper knowledge of the bacteriology of the skin.—Dr. J. H. Stowers opened a discussion upon Drug Eruptions. He was followed by the President and by Dr. Payne, Dr. Bowles, Dr. Stopford Taylor, Dr. A. J. Harrison, Dr. Galloway, Mr. Pernet and others.—Dr. Payne showed three cases—(1) Prurigo in a Child; (2) Morphœa in a Little Girl; and (3) a case for Diagnosis in an Old Man.—Mr. Hutchinson exhibited a large collection of drawings illustrating lupus, rodent ulcer, &c.—The annual dinner was held in the evening at the Café Royal, the President being in the chair. About forty members and guests were present.

THE CANDIDATURE OF MR. BENNETT MAY FOR THE COUNCIL OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.—A meeting of Fellows of the College residing in the Midlands was held in the Birmingham Medical Institute on June 1st, in support of the candidature of Mr. Bennett May for membership of the College Council. The chair was taken by Dr. Thomas Savage, and there were also present, in addition to the candidate, Mr. Gilbert Barling, Mr. W. E. Bennett, Mr. H. J. Blakesley, Mr. L. Gamgee, Mr. W. F. Haslam, Mr. G. Heaton, Mr. J. Furneaux Jordan, Mr. C. Leedham-Green, Mr. Christopher Martin, Mr. J. W. Taylor, Mr. William Thomas, Mr. T. Wilson, and Mr. J. T. J. Morrison. Apologies for non-attendance had been received by the secretary (Mr. Morrison) from Mr. F. Edge, Mr. G. C. Franklin, Surgeon-Major W. G. Lowe, Mr. C. H. Marriott, Mr. F. H. Marson, Mr. E. J. P. Olive, Mr. Edwin Rickards, Mr. E. S. Savage, Mr. J. Vose Solomon, and Mr. W. D. Spanton. At the request of the chairman Mr. Bennett May stated his views on College affairs and expressed his willingness to accede to the request that he would offer himself for the ensuing election in July. The following resolution, proposed from the chair and seconded by Mr. Barling, was carried unanimously—viz.: "That this meeting of Fellows of the Royal College of Surgeons of England residing in and around Birmingham is of opinion that it is desirable that the Midlands should be represented on the Council of the College, and pledges itself to support the candidature of Mr. Bennett May." It was also resolved that copies of the foregoing resolution should be sent to the medical press, and a sub-committee was appointed to take further steps to promote Mr. Bennett May's election.

BECKENHAM AND PENGE MEDICAL SOCIETY.—The annual dinner of the Beckenham and Penge Medical Society was held at Howard's Assembly Rooms on May 26th, when thirty-five members and guests were present. The company included the Rector of Beckenham and Dr. Walker, honorary members of the society, and the majority of the medical practitioners of the neighbourhood. Among the visitors were Dr. Frederick Roberts, of University College; Mr. Bland Sutton, of Middlesex Hospital (honorary consulting surgeon of the local hospital); Mr. Marmaduke Sheild, of St. George's Hospital; and Mr. Keetley, of the West London Hospital. The dinner was a great success and the pleasure of the evening was in no way decreased by the absence in the speeches of any allusion to the bitter conflict of last year. The medical practitioners remain as they were, but prefer to leave to the healing influence of time and the good sense of the public the settlement of the club question. The toast of "The Queen" was proposed by the President, Mr. Frank Sturges, and he made a feeling reference to the loss which Her Majesty and the nation had sustained in the death of Mr. Gladstone. Mr. Prangley, vice-president, proposed "The Royal College of Physicians of London and the Royal College of Surgeons of England," urging on them a more serious attention to the duties devolving on them as the governing bodies of the profession. This was replied to by Dr. Roberts for the Royal College of Physicians in a very humourous and witty speech and by Mr. Sheild for the Royal College of Surgeons. The Rector of Beckenham, the Rev. H.

Arnott, F.R.C.S., proposed "The Local Medical Society." He spoke of his love and admiration for his old profession in the warmest terms, dwelt on the many advantages of the society in rubbing away rough corners and promoting goodwill and good fellowship among the members, but avoided altogether the "Battle of the Clubs" in either its general or local aspect. This enabled Mr. Sturges, who replied on behalf of the society to avoid it also, and he contented himself with some general remarks on the use of these societies in strengthening and binding together the medical profession throughout the country for its own good and for that of the public. Mr. Wells proposed "The Visitors," regretting the absence of those who were unable to be present. Mr. Keetley replied. The health of the Chairman, proposed by Mr. Bland Sutton, and the Chairman's reply concluded the toast list. During the evening Mr. C. A. Lidgey presided at the piano and Dr. Roberts and Mr. Henley sang. Altogether it was a most excellent dinner, a most enjoyable and harmonious gathering, and a conspicuous success.

Parliamentary Intelligence.

NOTES ON CURRENT TOPICS.

Prisons Bill.

THE consideration of the Prisons Bill by the Grand Committee on Law of the House of Commons is now practically finished and as the measure has been a good deal altered by the Committee it may be useful to explain its present state. Probably the clause in which the most important amendment has been made is the first. The clause provides for the amalgamation of the Directors of Convict Prisons with the Prison Commissioners and against the expressed opinion of the Home Secretary the Committee inserted a stipulation that one of the latter shall be a medical man skilled in mental diseases. In the matter of visitation the Bill in its present state provides that the Secretary of State shall appoint for every convict prison a board of visitors of whom not less than two shall be justices of the peace and whose powers and duties shall be prescribed by the prison rules drawn up by the Secretary of State. With regard to the rules for hard labour it is provided that in making these rules regard shall be had to the sex, age, health, industry, and conduct of the prisoners. Roughly speaking, the arrangements in the original Bill for the division and classification of prisoners stand—that is to say, there are to be three classes. In the interests of persons imprisoned for default in payment of a debt or for default in satisfying an order of the Court there is a proviso that they shall not be placed in association with convicted prisoners or be compelled to wear prison dress unless their own clothing is unfit for use. Clause 6 is now made to read: "1. It shall not be necessary to provide or appropriate punishment cells in any prison for the confinement of prisoners for prison offences, but in every prison special cells shall be provided for the temporary confinement of refractory or violent prisoners. 2. The Secretary of State shall satisfy himself from time to time that in every local and convict prison separate cell accommodation is provided for all prisoners, and a yearly return showing the accommodation of each prison and the daily average and highest number of prisoners confined therein during the year shall be given in the annual report of the Prison Commissioners." The Home Secretary has drafted the rules which he proposes to issue and these he has put before the members of the committee for their consideration. Further than that, by way of concession to prison reformers, he has appointed a committee of experts (the constitution of which was given in our columns last week) to inquire into the important question of the dietary.

Vaccination Bill.

Very soon after the conclusion of the Whitsun Recess the Vaccination Bill will fall to be dealt with by the Grand Committee on Law of the House of Commons, and in view of the proceedings a large number of amendments have been prepared by members of the committee. Many of these amendments aim at the same object though their wording may be somewhat different. For instance, there is a large group which seek to insert in the Bill an arrangement whereby there shall be no prosecution for contravention of the Vaccination Acts unless with the sanction of the board of guardians. Their phraseology and in some cases their methods differ, but they all have this object in view. Mr. Carlile is responsible for a long list of amendments. Among other things he proposes that six instead of twelve months shall be the period from the time of birth within which vaccination shall be required to be performed. He also proposes several new clauses. One of these is in effect that from and after a particular date vaccination by public vaccinators shall with certain exceptions be performed with glycerinated calf or other approved animal lymph, and such lymph shall be obtained either from the national vaccine establishment or from a person or body duly licensed to supply it; that the Local Government Board shall make regulations to secure the provision and supply of glycerinated calf or other approved animal lymph, and may license on such terms as the Board may think fit any person or body to supply such lymph, and that if any parent or person having charge of a child shall signify the desire to have the vaccination performed with humanised lymph the vaccination officer may so perform it on receiving a written statement to that effect signed and witnessed. Mr. Carlile has drafted two other clauses—one providing for vaccination free of charge by public vaccinators and the other providing that parents having conscientious objections to vaccination may make a statutory declaration to that effect and thus free themselves from the possibility of prosecution. Mr. Sydney Gedge proposes that the parent shall get a reward of one shilling for having his child vaccinated, and that in addition to this shilling to the parent the sanitary authority shall pay to the medical practitioner a fee of half a crown for each child whom he vaccinates. Against the name of Mr. Brigg there stand on the notice paper several amendments. One of these limits the penalty on conviction to 5s. "including the costs." In another it is proposed that evidence tendered before a court of summary jurisdiction in cases of prosecution for neglected vaccination shall not be considered complete unless it includes a certificate from a duly qualified medical man that the child whose parent or guardian is being prosecuted is in a fit state of health to undergo the operation. Fitting in with this amendment Mr. Brigg has framed a new clause setting forth that the certificate of the duly qualified medical man shall not cost more than 1s. Colonel Long proposes that in any case where the parent or guardian makes a declaration or affidavit that he objects to the child being vaccinated on the ground that he believes vaccination to be dangerous or wrong and forwards the declaration or affidavit to the local registrar, then the parent shall not be liable to prosecution under the Vaccination Acts. Mr. Logan is responsible for the novel proposal that no local authority or educational authority or institution receiving grants in aid from the Government shall make vaccination a condition of employment or admission. There are many more amendments, but those mentioned will serve to show the drift of the discussion to be anticipated when the committee begins its work.

Appointments.

Successful Applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

ALFORD, H. T. M., L.R.C.P., M.R.C.S., has been appointed Senior Obstetric House Physician to St. Thomas's Hospital.

ALLFREY, F. H., B.A. Camb., L.R.C.P., M.R.C.S., has been appointed a Clinical Assistant in the Special Department for Diseases of the Ear at St. Thomas's Hospital.

BELFRAGE, S. H., L.R.C.P., M.R.C.S., has been appointed a Clinical Assistant in the Electrical Department at St. Thomas's Hospital.

BELL, R. H., B.A. Camb., L.R.C.P., M.R.C.S., has been re-appointed a House Physician to St. Thomas's Hospital.

BERRY, F. M. D., M.D., B.S. Lond., has been appointed a Medical Officer by the London School Board.

BERTRAM, T. D., M.B., Ch.M. Glasg., has been appointed Visiting Surgeon and Dispenser for the Coonamble Gaol, New South Wales, vice E. O. Newland, resigned.

BLUETT, P. F. W., L.R.C.P. Edin., L.F.P.S. Glasg., has been appointed *pro tem* acting Medical Officer and Vaccinator for the district of Molong, New South Wales.

BOOTH, JAMES, L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., has been appointed Officer of Health and Public Vaccinator for the Shire of Dunmunkle, East Riding, Victoria, Australia, vice A. G. H. Colquhoun, resigned.

COBB, E. H., L.R.C.P., M.R.C.S. has been re-appointed an Assistant House Surgeon to St. Thomas's Hospital.

CLOSS, J. O., M.D., Ch.M. Edin., has been appointed a member of the Board of Examiners for the City of Dunedin, New Zealand.

COLEMAN, P., M.B., B.S. Durh., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer for the Eighth Sanitary District of the Tendring Union.

COOK, P. R., M.B., Ch.B. Univ. N. Z., has been appointed a Public Vaccinator for the district of Oxford, New Zealand.

COX, F. H., M.B., Ch.M. Syd., has been appointed a Medical Officer for the Hospital, Walgett, New South Wales.

CROSS, W. J., M.D. Toronto, L.R.C.P., L.R.C.S. Edin., has been appointed a Public Vaccinator for Horsham, Victoria, Australia, vice G. J. Young, resigned.

CUSCADEN, GEORGE, L.R.C.P., L.R.C.S. Edin., has been appointed a Certifying Medical Officer for the Factories and Shops Acts for Port Melbourne, Victoria, Australia, vice W. S. Smythe, resigned.

DAVIES, W. J. R., L.R.C.P., M.R.C.S., has been appointed a Clinical Assistant in the Special Department for Diseases of the Skin at St. Thomas's Hospital.

DON, W. W., M.D., has been appointed a Clinical Assistant to the Chelsea Hospital for Women, Fulham-road, London, S.W.

FINLAY, S., L.K.Q.C.P., F.R.C.S. Irel., has been appointed a Government Medical Officer and Vaccinator for the district of Dugong, New South Wales, vice A. W. McMath, resigned.

GEMMELL, JOHN E., M.B., C.M. Edin., has been appointed Honorary Acting Medical Officer for the Hospital for Women, Shaw-street, Liverpool, vice T. B. Grimsdale.

GILBERT, L., L.R.C.P., M.R.C.S., has been appointed Junior Obstetric House Physician to St. Thomas's Hospital.

GODWIN, H. J., L.R.C.P. Lond., M.R.C.S., has been appointed a House Surgeon for the Durham County Hospital, vice W. A. Rutherford, resigned.

GOOD, J. E., M.B., M.S. Edin., has been appointed a Public Vaccinator for South Australia.

GRANT, A. J., M.D. Brux., L.R.C.P., M.R.C.S., has been re-appointed Clinical Assistant in the Special Department for Diseases of the Throat at St. Thomas's Hospital.

GREAVES, F. L. A., L.R.C.P., M.R.C.S., has been re-appointed an Assistant House Surgeon to St. Thomas's Hospital.

GREG, A. H., B.A. Camb., L.R.C.P., M.R.C.S., has been re-appointed an Assistant House Surgeon to St. Thomas's Hospital.

HALL, J. S., L.R.C.P., M.R.C.S., has been re-appointed a House Surgeon to St. Thomas's Hospital.

HARVEY, R. R., M.B., Ch.B. Melb., has been appointed a Health Officer for Norseman, Western Australia, vice A. Goode, resigned.

HAWKES, C. S., L.R.C.P. Lond., M.R.C.S., has been appointed *pro tem.* Acting Medical Superintendent of Quarantine, Acting Health and Medical Officer, Acting Visiting Surgeon to the prison, and Acting Visiting Surgeon to the Lock Hospital at Rockhampton, Queensland.

HAY, J. B., M.B., Ch.M. Edin., has been appointed Officer of Health and Public Vaccinator for the Shire of Heytesbury, Victoria, Australia, vice G. M. Reid, resigned.

HINDER, A. V. C., M.B., Ch.M. Syd., has been appointed Surgical Tutor in the University of Sydney, New South Wales, vice J. F. McAllister, resigned.

HUXTABLE, R. B., M.B., Ch.M. Edin., has been appointed Resident Medical Superintendent for the Hospital, Charters Towers, Queensland, vice F. W. C. Hare, resigned.

KENNARD, H. P., M.B., B.S. Durh., has been appointed a Clinical Assistant in the Special Department for Diseases of the Ear at St. Thomas's Hospital.

LAWSON, G. L. L., M.R.C.P. Edin., D.P.H., M.R.C.S., has been appointed Health Officer for Mullewa, Western Australia.

MCCLEAN, J. F., L.R.C.P., M.R.C.S., has been re-appointed a House Surgeon to St. Thomas's Hospital.

MARRIAGE, H. J., L.R.C.P., M.R.C.S., has been re-appointed a House Surgeon to St. Thomas's Hospital.

MARTIN, F. R., B.A., M.B., B.C. Camb., L.R.C.P., M.R.C.S., has been appointed a Clinical Assistant in the Special Department for Diseases of the Throat at St. Thomas's Hospital.

MULLICK, SASAT, M.B., C.M., has been re-appointed Resident Medical Officer for the National Hospital for Heart and Paralysis, Soho-square, London.

PIERCE, R. W. C., M.B., B.Sc. Lond., L.R.C.P., M.R.C.S., L.S.A., D.P.H. Camb., has been appointed a House Physician to St. Thomas's Hospital.

ROBINSON, A. C., L.R.C.P., M.R.C.S., has been re-appointed an Assistant House Surgeon to St. Thomas's Hospital.

SANGUINETTI, H. H., B.A., M.B., B.Ch. Oxon., L.R.C.P., M.R.C.S., has been re-appointed a House Surgeon to St. Thomas's Hospital.

SARGENT, F. W. G., B.A. Camb., L.R.C.P., M.R.C.S., has been appointed a Clinical Assistant in the Special Department for Diseases of the Skin at St. Thomas's Hospital.

SCOTT, H. H., L.R.C.P., M.R.C.S., has been re-appointed a House Physician to St. Thomas's Hospital.

SHEA, H. F., M.B., B.S. Durh., L.R.C.P., M.R.C.S., has been re-appointed a House Physician to St. Thomas's Hospital.

SHUTTLEWORTH, G. E., M.D. Heidelb., M.R.C.S., has been appointed a Medical Officer by the London School Board.

STEVENSON, JOHN FINDLAY, L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., has been appointed Casualty Surgeon, Glasgow Police, vice Professor Glaister, resigned.

THORNELY, W., M.A., M.B., B.C. Camb., L.R.C.P., M.R.C.S., has been appointed a Clinical Assistant in the Electrical Department at St. Thomas's Hospital.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement (see Index).

ASTON MANOR URBAN DISTRICT COUNCIL.—Medical Officer of Health for the district. Salary £200 per annum; and Medical Attendant at the Infectious Hospital. Salary £125 per annum, for one year. Applications to the Clerk of the Council, Council Offices, Albert-road, Aston Manor, Birmingham.

BIRMINGHAM AND MIDLAND EAR AND THROAT HOSPITAL, Edmund-street, Birmingham.—Honorary Assistant Surgeon for one year.

BIRMINGHAM AND MIDLAND HOSPITAL FOR SKIN AND URINARY DISEASES, Birmingham.—Clinical Assistant.

BRADFORD ROYAL INFIRMARY.—Honorary Physician or Medical Officer.

BRISTOL GENERAL HOSPITAL.—Locum Tenens. Two weeks from June 13th. £3 3s. per week.

CARDIFF INFIRMARY.—Assistant House Surgeon and an Assistant House Physician for six months. Board, washing, and apartments provided.

CHELSEA HOSPITAL FOR WOMEN, Fulham-road, S.W. — Resident Medical Officer for twelve months. Salary £60 per annum, with board, lodging, and washing.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria-park, E.—House Physician for six months. Salary at the rate of £30 per annum, with board and residence.

DONCASTER GENERAL INFIRMARY AND DISPENSARY.—In-door Dispenser and Assistant to the House Surgeon. Board, lodging, and washing provided.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark-bridge-road, S.E.—Senior Resident Medical Officer. Salary £70, with board and washing.

LINCOLN COUNTY HOSPITAL, Bank-street, Lincoln.—Assistant House Surgeon for six months. Honorarium £10, with board, residence, and washing.

LOUGHBOROUGH AND DISTRICT GENERAL HOSPITAL AND DISPENSARY, Loughborough.—Resident House Surgeon. Salary £100 per annum, with furnished rooms, attendance, and board.

NOTTINGHAM CITY ASYLUM.—Second Assistant Medical Officer, unmarried. Salary £100, with apartments, board, and washing.

PARISH OF ST. LEONARD, Shoreditch.—Second Assistant Medical Officer for the Infirmary, Hoxton-street, N., for six months. Salary at the rate of £80 per annum, with rations, washing, and furnished apartments in the Infirmary. Applications to the Clerk to the Guardians, Clerk's Office, 213, Kingsland-road, N.E.

QUEEN CHARLOTTE'S LYING-IN HOSPITAL, Marylebone-road, London.—Assistant Resident Medical Officer for four months. Salary at the rate of £50 per annum, with board, residence, and washing.

ROYAL INFIRMARY, Sheffield.—Vacancy on the Honorary Surgical Staff.

ST. BARTHOLOMEW'S HOSPITAL AND COLLEGE, London.—Assistant Demonstrator of Chemistry.

ST. MARYLEBONE GENERAL DISPENSARY, 77, Welbeck-street, London.—Resident Medical Officer. Salary 100 guineas per annum, with an annual increase of 10 guineas to a maximum of 120 guineas, with furnished apartments, attendance, coal, and lights.

VICTORIA UNIVERSITY (THE YORKSHIRE COLLEGE), Leeds.—Demonstrator of Physiology. Salary £150.

WALSALL AND DISTRICT HOSPITAL, Walsall.—Resident House Surgeon. Salary £100 per annum, board, lodging, and washing.

WEST LONDON HOSPITAL, Hammersmith-road, W.—House Physician and House Surgeon for six months.

WEST RIDING ASYLUM, Wakefield.—Pathologist. Salary £150, increasing to £200.

WILLITON RURAL DISTRICT COUNCIL.—Medical Officer of Health for the Eastern Division of the District. Salary £50 per annum. Applications to the Clerk to the Council, Williton, Somerset.

WILLITON UNION, Somerset.—Medical Officer and Public Vaccinator for the Stogumber District of the Union. Salary £80 per annum, together with certain extra fees. Applications to the Clerk, Williton, Somerset.

WONFORD HOUSE, Exeter.—Locum Tenens Assistant Medical Officer for July and August.

WORCESTER GENERAL INFIRMARY.—Assistant House Surgeon and Dispenser for two years, unmarried. Salary £70 per annum, with board, residence, and washing.

YORK DISPENSARY.—Resident Medical Officer, unmarried. Salary £150 a year, with furnished apartments, coals, and gas. Applications to W. Draper, Esq., De Grey House, York.

Births, Marriages, and Deaths.

BIRTHS.

BARTLETT.—On May 23rd, at Saffron Walden, the wife of Hedley Bartlett, M.R.C.S., L.R.C.P., of a daughter.

BENSON.—On May 26th, at Broomhill, Sheffield, the wife of Henry Mitchell Benson, M.B., C.M. Edin., of a daughter.

FLEMING.—On May 26th, at Bruntsfield-place, Edinburgh, the wife of Andrew Milroy Fleming, M.B., C.M., of Salisbury, Mashonaland, of a son.

LITTLE.—On May 26th, at Seymour-street, Portman-square, London, W., the wife of E. Muirhead Little, F.R.C.S. Eng. of a daughter.

MACLEOD.—On May 25th, at Airlie bank, Dundee, the wife of J. M. H. MacLeod, M.B., of a son (stillborn).

OXLEY.—On May 23rd, at 33, Richmond-terrace, Clapham-road, the wife of W. H. F. Oxley, M.R.C.S., L.R.C.P., of a daughter.

STRAND.—On May 25th, at Baker-street, Portman-square, W., the wife of Alick C. Strand, M.R.C.S., of a daughter.

WHITELOCKE.—On May 24th, at Oxford, the wife of H. Anglin Whitelocke, M.B., F.R.C.S., of a daughter.

MARRIAGE.

CONNOLLY—HOPER-DIXON.—On May 24th, at St. Dominic's Priory Church, Haverstock-hill, N.W., Richard Michael Connolly, B.A., L.R.C.S. Edin., District Surgeon, Perak, Federated Malay States, to Flora Hoper-Dixon, second daughter of the late Thomas Nunn Debenham, Regent's-park-road, and widow of the late Surgeon-Captain A. L. Hoper-Dixon.

DEATHS.

BARNARD.—On May 27th, at Broad-walk, Buxton, Arthur Joynson Barnard, M.R.C.S., L.R.C.P., aged 37 years.

HECKSCHER.—On May 29th, at The Elms, Barlow Moor-road, West Didsbury, near Manchester, Martin Bernard Heckscher, M.D., M.R.C.P., aged 74 years.

LOWDELL.—On May 29th, at Charles-road, St. Leonards-on-Sea, Surgeon-Major Charles Lowdell, late 4th Bengal Cavalry (Retired).

SHAW.—On May 26th, at Blackheath, Francis Bentley Shaw, M.R.C.S., L.R.C.P., aged 28 years.

WRIGHT.—On May 27th, at his residence in Wakefield, Thomas Giordan Wright, M.D.

N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.

Medical Diary for the ensuing Week.

OPERATIONS.

METROPOLITAN HOSPITALS.

MONDAY (6th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), St. George's (2 P.M., Ophthalmic 1.15 P.M.), St. Mary's (2.30 P.M.), Middlesex (1.30 P.M.), St. Mark's (2 P.M.), Chelsea (2 P.M.), Samaritan (Gynæcological, by Physicians, 2 P.M.), Soho-square (2 P.M.), Royal Orthopædic (2 P.M.), City Orthopædic (4 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.), Westminster (2 P.M.).

TUESDAY (7th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), Guy's (1.30 P.M.), St. Thomas's (3.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), West London (2.30 P.M.), University College (2 P.M.), St. George's (1 P.M.), St. Mary's (1 P.M.), St. Mark's (2.30 P.M.), Cancer (2 P.M.), Metropolitan (2.30 P.M.).

WEDNESDAY (8th).—St. Bartholomew's (1.30 P.M.), University College (2 P.M.), Royal Free (2 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), King's College (2 P.M.), St. Mary's (2 P.M.), National Orthopædic (10 A.M.), St. Peter's (2 P.M.), Samaritan (2.30 P.M.), Gt. Ormond-street (9.30 A.M.), Gt. Northern Central (2.30 P.M.), Westminster (2 P.M.), Metropolitan (2.30 P.M.).

THURSDAY (9th).—St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), University College (2 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), London (2 P.M.), King's College (2 P.M.), Middlesex (1.30 P.M.), St. Mary's (2.30 P.M.), Soho-square (2 P.M.), North-West London (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (Gynæcological, 2.30 P.M.), Metropolitan (2.30 P.M.).

FRIDAY (10th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), King's College (2 P.M.), St. Mary's (2 P.M., Ophthalmic 10 A.M.), Cancer (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.).

SATURDAY (11th).—Royal Free (9 A.M. and 2 P.M.), Middlesex (1.30 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), University College (9.15 A.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), St. Mary's (10 P.M.), Cancer (2 P.M.).

At the Royal Eye Hospital (2 P.M.), the Royal London Ophthalmic (10 A.M.), the Royal Westminster Ophthalmic (1.30 P.M.), and the Central London Ophthalmic Hospitals operations are performed daily.

SOCIETIES.

MONDAY (6th).—ODONTOLOGICAL SOCIETY OF GREAT BRITAIN (40 Leicester-square).—8 P.M. Papers:—Mr. K. D. Goadby: Some further Notes on the Bacteria of the Mouth.—Mr. W. R. Humby: A Communication on Amalgam.

TUESDAY (7th).—ROENTGEN SOCIETY (11, Chandos-st., W.).—7.30 P.M. Council Meeting. 8 P.M. Papers:—Mr. T. C. Porter (Eton): Work on the X-rays.—Mr. A. A. C. Swinton: A Pin-hole Roentgen Ray Camera and its Applications. (Followed by a Discussion.)

WEDNESDAY (8th).—LARYNGOLOGICAL SOCIETY OF LONDON (20, Hanover-square, W.).—4 P.M. Council Meeting. 5 P.M. Cases and Specimens will be shown by Dr. Permewan, Dr. Tilley, Dr. Pegler, Dr. Spicer, Mr. R. Lake, and others.

DERMATOLOGICAL SOCIETY OF LONDON (11, Chandos-street, Cavendish-square, W.).—5.15 P.M. Demonstration of Clinical Cases.

BRITISH BALNEOLOGICAL AND CLIMATOLOGICAL SOCIETY (Limmer's Hotel, Conduit-street, W.).—9 P.M. Conversazione. Dr. G. V. Poore: Circumstances which Influence the Effectiveness of Climatic Treatment. Messrs. Negretti and Zambra: Exhibition of Meteorological Instruments. Dr. W. S. Hedley: Radiant Heat Apparatus.

THURSDAY (9th).—OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM (11, Chandos-street, Cavendish-sq., W.).—8 P.M. Cases and Card Specimens. 8.30 P.M. Papers: Mr. P. Flemming: A Case of Retinitis Proliferans in which the Eyeball was examined after Death.—Mr. H. Spicer: Œdema of the Conjunctiva.—Mr. T. Collins: The Pathogenesis of Anterior Polar Cataract.

BRITISH GYNÆCOLOGICAL SOCIETY (20, Hanover square).—8.30 P.M. Specimens will be shown by Mr. S. Keith, Mr. C. Ryall, and others. Dr. F. Edge (Wolverhampton): Note on a Case of Uterus Septus Bilocularis and Vagina Subsepta. Paper:—Dr. G. Bantock: Dysmenorrhœa (followed by a Discussion).

FRIDAY (10th).—OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM (11, Chandos-street, W.).—Mr. P. Smith: The Etiology and Educative Treatment of Convergent Strabismus. (Bowman Lecture.)

LECTURES, ADDRESSES, DEMONSTRATIONS, &c.

MONDAY (6th).—LONDON POST-GRADUATE COURSE.—London Throat Hospital, 211, Portland-st., W., 8 P.M., Mr. G. C. Wilkin: Anatomy of Ear (illustrated with lantern).

CENTRAL LONDON THROAT, NOSE, AND EAR HOSPITAL (Gray's Inn-road, W.C.).—5 P.M. Mr. Lennox Browne: The Treatment of Lupus and Tubercle of the Upper Air Passages.

TUESDAY (7th).—LONDON POST-GRADUATE COURSE.—Hospital for Skin Diseases, Blackfriars, 4.30 P.M., Dr. Abraham: Neoplasms.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC (Bloomsbury).—3.30 P.M. Dr. Ormerod: Lecture.

WEST-END HOSPITAL FOR DISEASES OF THE NERVOUS SYSTEM (73, Welbeck-street).—4.30 P.M. Dr. T. D. Savill: Cases of Neurasthenia and Acroparæsthesia.

WEDNESDAY (8th).—LONDON POST-GRADUATE COURSE.—Parkes Museum, Margaret-st., W., 4.30 P.M., Prof. A. Wynter Blyth: Air.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST (Brompton).—4 P.M. Dr. Wethered: Incipient Pulmonary Tuberculosis.

WEST LONDON POST-GRADUATE COURSE (West London Hospital, W.).—5 P.M. Dr. D Hood: The Symptoms of Gastric Ulceration.

THURSDAY (9th).—LONDON POST-GRADUATE COURSE.—Central London Sick Asylum, Cleveland-st., W., 5.30 P.M., Dr. Heron: Clinical Lecture.

CHARING-CROSS HOSPITAL.—4 P.M. Dr. Wallis: Demonstration of Surgical Cases. (Post-graduate Class.)

THE HOSPITAL FOR SICK CHILDREN (Gt. Ormond-street, W.C.).—4 P.M. Dr. Barlow.

CENTRAL LONDON THROAT, NOSE, AND EAR HOSPITAL (Gray's Inn-road, W.C.).—5 P.M. Dr. D. Grant: Clinical Anatomy and Methods of Examination of the Sinuses of the Nose.

FRIDAY (10th).—LONDON POST-GRADUATE COURSE.—King's College 3 to 5 P.M., Dr. Wilkinson: Typhoid Fever and Diphtheria.

SATURDAY (11th).—ROYAL INSTITUTION.—3 P.M. Dr. R. Caton: The Temples and Ritual of Asklepios at Epidaurus and Athens (with lantern illustrations).

Notes, Short Comments, and Answers to Correspondents.

EDITORIAL NOTICE.

IT is most important that communications relating to the Editorial business of THE LANCET should be addressed *exclusively* "TO THE EDITORS," and not in any case to any gentleman who may be supposed to be connected with the Editorial staff. It is urgently necessary that attention be given to this notice.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

Lectures, original articles, and reports should be written on one side of the paper only, AND, WHEN ACCOMPANIED BY BLOCKS, IT IS REQUESTED THAT THE NAME OF THE AUTHOR, AND IF POSSIBLE OF THE ARTICLE, SHOULD BE WRITTEN ON THE BLOCKS TO FACILITATE IDENTIFICATION.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *should be addressed "To the Manager."*

We cannot undertake to return MSS. not used.

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WILL Subscribers please note that only those subscriptions which are sent direct to the Proprietors of THE LANCET at their Offices, 423, Strand, W.C., are dealt with by them? Subscriptions paid to London or to local newsagents (with none of whom have the Proprietors any connexion whatever) do not reach THE LANCET Offices, and consequently inquiries concerning missing copies, &c., should be sent to the Agent to whom the subscription is paid, and *not* to THE LANCET Offices.

Subscribers, by sending their subscriptions direct to THE LANCET Offices, will ensure regularity in the despatch of their Journals and an earlier delivery than the majority of Agents are able to effect.

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TYPISTS AND HEARING.

IN the May number of the *Phonographic Magazine* of Cincinnati Mr. William Whitford, the official reporter of the American Medical Association, points out that it is essential that the typist should have very acute hearing, otherwise ludicrous mistakes may occur. This is particularly the case in medical work, in which so many words with similar sounds are used. Chemosis and ecchymosis, anæmia and enema, macerate and lacerate, nephritis and metritis may be easily mistaken for each other by one whose hearing is imperfect, while change-stroke bears a close resemblance in sound to Cheyne-Stokes. This is sufficiently obvious, but it may not be so well known that the continual noisy tap, tap of the typewriting machine will impair still more hearing which may be already deficient. We know of a case of chronic middle-ear catarrh in which

the use of the typewriter had a very deleterious and destructive effect on the already deficient hearing. When this was realised the machine was exchanged for one of another make more silent in operation. But the effect of the new machine upon the hearing was nearly as great and now the patient cannot work for a few hours at the typewriter without having to pay the penalty of a diminished degree of hearing. The deafness of boilermakers and artificers who work where there is much loud hammering is well known, and though we do not suppose, as in their case, that the noise of a typewriter would damage the normal healthy ear, the case to which we refer shows that it may accentuate and increase mischief already begun. The man who can devise a silent typewriter will earn the gratitude of a progressive people.

AN IMPROVED TEAPOT.

MANY people prefer, and with good reason, a teapot made of earthenware, but tea-infusers of this kind are not always satisfactory—either the infusion will not pour out freely or else the smaller leaves find their way into the cup. Bailey's patent strainer teapot is designed to overcome this objection, the strainer being formed of a cup-shaped piece of clay perforated with a number of small holes which effectually prevent the tea leaves from getting into the teacup. In the event of the holes becoming filled up with small particles of leaves the teapot can be placed in an oven, when the leaves will shrivel up and they can be removed by blowing down the spout. As the strainer is part of the teapot there is nothing to get out of order and the invention is likely to be appreciated by all lovers of a cup of good tea. The teapot can be obtained at 32, Hatton-garden, E.C., or at the Alloa Pottery, Alloa.

A DANGEROUS PRACTICE.

A CORRESPONDENT of the *Manchester City News* calls attention to the dangerous practice, a very old one in Manchester, of throwing heavy bundles of cloth from the upper stories of warehouses on to lorries standing in the street. It is a wonder that accidents do not happen more frequently. The man on the lorry is generally on the look-out and the one above who throws the dangerous missile acquires, no doubt, some skill in the practice; but accidents do occur, and the writer of the letter gives two instances. In one, occurring the other week, "a little girl just missed death by a few inches, the bundle of cloth falling at her feet," and in the other while a man was loading goods which were being thrown from a warehouse in Hart-street "a bundle fell on him, and he is now in the infirmary, if not dead." The writer is surprised that the trades unions do not take the matter up, but they seem to think more of wages and short hours than of danger to life. No doubt, as he says, "the (calico) printers, dyers, and bleachers save large amounts at the risk of life to the public." It is a matter well worthy the attention of the city council whether or not they should continue tacitly to sanction this dangerous and unnecessary practice.

THE LADY DISPENSER.

To the Editors of THE LANCET.

SIRS,—I should be greatly obliged for any information as to the prospect for a young lady wishing to take up "dispensing." Any particulars as to facilities for instruction and nature and salaries of posts subsequently obtainable will be gratefully received.

I am, Sirs, yours faithfully,

May 31st, 1898. M.D. LOND.

REFUSAL OF MEDICAL MEN TO ATTEND.

IT is a curious delusion that a medical man is public property, bound to be at everybody's beck and call. The most stingy man, who has not paid his medical man's bill for two or three years, is apt to consider as soon as he gets into trouble that he has only to ring the "doctor's" bell to be immediately attended. The medical profession has itself to blame for this popular delusion. It has made itself so cheap that many people assume that its services need not be paid for. It is time that such a notion should be corrected. It was broached a few days ago at an inquest at Elton, where the husband of the deceased complained that the medical man applied to refused to go without an order. The witness admitted that he had not paid for some previous attendance. The coroner refused to believe that a medical man would neglect his duty. So do we. We are not arguing from any inhumanity; but we think that coroners and others do well to vindicate the profession on such occasions and to read the law to the public which expects so much of and gives so little to medical men.

"A QUESTION OF TREATMENT."

To the Editors of THE LANCET.

SIRS,—I have only just observed in your issue of April 16th under the above heading the inquiry of your correspondent "Venule." The dilatation of small veins to which he alludes is, I believe, due to the partial or complete occlusion of their affluent capillaries, such occlusion having been brought about by long-maintained poisoning of the blood stream by the products of depraved digestion and metabolism, including generally uric acid. The heightening of the colour as the result of an attack of indigestion is due to a temporary increase in the contamination of the blood. The treatment for such cases divides itself under two heads: the improvement of the circulation and the opening up of closing arterioles and capillaries, which can be best and most rapidly effected by recourse to the Schott methods of baths and exercises, and, secondly, by careful diet, the limitation of gastric fermentation, intestinal antisepsis, and the free ingestion of warm water from two and a half to three hours after the principal meals, with a view to washing out the stomach and carrying off the products of retrograde metamorphosis through the kidneys.

I am, Sirs, yours faithfully,

June 1st, 1898. W. B. T.

THE DISTRICT MESSENGERS COMPANY.

THE general manager of this company draws our attention to the difficulty often experienced by the public in obtaining the services of a district messenger boy at public places. "In most cases," he says, "this is owing to some prejudice or vested interest on the part of attendants and others." "A messenger call-box," he continues, "is in nearly every first-class hotel, club, theatre, shop, and public building of any kind, and if any difficulty is ever experienced or obstacle thrown in the way of getting a messenger we should be grateful for information given at any of our offices."

"THE LATE ARTHUR JEFFARES BARLOW."

To the Editors of THE LANCET.

SIRS,—Please acknowledge on behalf of the Barlow Fund, per Dr. J. W. Moore, £1 from "Postmark" (Waterford).

I am, Sirs, yours truly,

179, Hither-green, Lewisham, S.E., May 31st. R. H. CAPPER.

L.R.C.P., M.R.C.S.—There is no precedent known to the Royal College of Physicians of London for the issue of a second diploma by the College. The request to do so has always been refused. In the great majority of cases the licence has been registered by the General Medical Council, and a certificate of registration answers all the purposes of a diploma. The Royal College of Surgeons of England also declines to issue duplicate diplomas, but a certificate can be obtained from the College that a diploma has been obtained, which certificate would always satisfy the Registrar of the General Medical Council or any other authority. The charge for the certificate is five guineas, unless it can be proved that the original document "has been destroyed or irrevocably lost by fire, shipwreck, or other accident" (Section XIX. of the College Bye-laws and Section VII. of the Standing Rules).

Determination of Sex.—Other journals have already seen the coincidence or we should have been happy to print the note.

J. R.—We do not recommend individual practitioners.

Lambda.—No.

COMMUNICATIONS not noticed in our present issue will receive attention in our next.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, June 2nd, 1898.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Rainfall.	Solar Radia in Vacuo.	Maximum Temp. Shade.	Min. Temp	Wet Bulb.	Dry Bulb.	Remarks at 8.30 A.M.
May 27	29·95	S.E.	0·05	102	65	50	49	54	Cloudy.
,, 28	30·02	N.	...	98	61	50	50	54	Cloudy.
,, 29	30·14	N.W.	0·15	102	64	50	51	57	Cloudy
,, 30	29·89	N.	0·06	108	63	51	50	56	Cloudy
,, 31	29·62	N.W.	0·20	95	61	54	54	57	Cloudy
June 1	29·55	N.W.	0·17	102	58	43	45	50	Cloudy
,, 2	29·67	W.	...	87	50	47	47	50	Cloudy

During the week marked copies of the following newspapers have been received: *Kenilworth Advertiser, Eastern Daily News, New Ross Reporter, Walsall Advertiser, High Peak News, Berkshire Chronicle, Grantham Journal, Lancashire Express, Bridgend Chronicle, Pioneer Mail, Times of India, Cambridge Chronicle, Leigh Chronicle, Bristol Mercury, Cheshire Observer, Builder, Scotsman, Acton Gazette, Newport Advertiser, Citizen, Architect, Carnarvon Herald, Lowestoft Standard, Liverpool Daily Post, Dursley Gazette, Montrose Standard, Nottingham Guardian, Leeds Mercury, Maryport News, Whitstable Times, Dewsbury Reporter, East Anglian Times, Yorkshire Post, Sussex Daily News, Leicester Post, Manchester Courier, Sheffield Independent, Glasgow Herald, Tamworth Mercury, Brighton Gazette, Rutherglen Reformer, Sanitary Record, Hertfordshire Mercury, Light, The New Age, Reading Mercury, City Press, Local Government Chronicle, Mining Journal, Surrey Advertiser, Local Government Journal, Hong-Kong Daily Press, Hong-Kong Weekly Press, Australasian Medical Gazette, Brecon County Times, Clifton Chronicle, Alloa Weekly News, Falkirk Herald, Durham Chronicle, Dundee Advertiser, Weekly Free Press and Aberdeen Herald, Birmingham Gazette, West Middlesex Herald, Falkirk Mail, Essex Times, Ramsbottom Observer, Stroud Journal, Yarmouth Mercury, &c., &c.*

Communications, Letters, &c., have been received from—

A.—Dr. J. H. Ashworth, Halstead; Messrs. Arnold and Sons, Lond.; A. H. M.; Messrs. Allen and Hanburys, Lond.; A. E. B.

B.—Dr. J. Bately, Great Yarmouth; Messrs J. Beal and Son, Brighton; Messrs. Burgoyne, Burbidges, and Co., Lond.; Birmingham and Midland Ear Hospital, Hon. Secretary of; Berrow's Worcester Journal Co.: *Buxton Advertiser*, Proprietor of; Dr. R. C. Brown, Lond.; Mr. J. Barlow, Glasgow; Messrs. Burroughs, Wellcome and Co., Lond.; Messrs. W. H. Bailey and Son, Lond.; Mr. W. H. Brown, Leeds; Messrs. Brand and Co., Lond.; Dr. T. Barr, Glasgow; Dr. W. J. Brown, Chester-le-Street; Mr. W. J. Burcombe, Lincoln; Mr. S. H. Benson, Lond.; Messrs. Bates, Hendy, and Co., Reading; Bristol General Hospital, Secretary of; Birmingham and Midland Hospital for Skin, &c., Diseases.

C.—Sir F. Cruise, Dublin; Dr. W. Cromar, Wisbech; Dr. C.; Dr. T. C. Craig, Newcastle-on-Tyne; Coventry Public Medical Service, Hon. Secretary of; Mr. W. F. Clay, Edinburgh; Dr. R. Caton, Liverpool; Dr. J. B. Coleman, Dublin; Messrs. J. and A. Churchill, Lond.; Messrs. Cassell and Co., Lond.; Mr. H. F. Cheese, Lond.; Mr. Chavasse, Birmingham; Cardiff Infirmary, Secretary of; Chelsea Hospital for Women, Secretary of; Mr. H. Cox, Williton; Messrs. A. H. Cox and Co., Brighton; Dr. F. J. H. Coutts, Manchester.

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R.—Mr. K. Ricker, St. Petersburg; Mr. F. G. A. Rogers, Cardiff; R. R. D.; Mr. M. A. Robinson, Honiton; Royal Society, Lond., Assistant Secretary of.

S.—Mr. H. W. Scriven, Lond.; Scientific Press, Lond., Manager of; Sanitas Co., Lond.; Dr. J. A. Shaw-Mackenzie, Lond.; Dr. C. Slater, Lond.; Dr. G. E. Shuttleworth, Richmond; Mr. J. C. Spence, Westham; Mrs. E. Shiers-Mason, Gibraltar; Dr. R. P. Smith, Lond.; Messrs. Street Bros., Lond.; Messrs. M. Samuel and Co., Lond.; Messrs. Street and Co.; J. T. Segrue, Ltd., Lond.; Dr. Syers, Lond.; Messrs. W. H. Smith and Son, Manchester.

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W.—Dr. W. Whitla, Belfast; Mr. S. Wand, Leicester; W. T. B.; Mr. T. Welsh, Walsall; Dr. T. J. Wood, Bradford; Dr. A. T. Wilkinson, Withington; Messrs. Wills, Lond.: *Wiltshire County Mirror*, Salisbury, Managing Director of; Mr. F. Wilson, Lond.: West Riding Asylum, Wakefield, Clerk of; Messrs. Widenmann, Broicher, and Co., Lond.

Letters, each with enclosure, are also acknowledged from—

A.—Mr. W. J. Allkin, Denton; A. K.; Mr. G. N. Adams, Lond.; Dr. F. A. Arnold, Bulawayo, Rhodesia; Ancoats Hospital, Manchester, Secretary of; Mr. S. E. Atkins, Pinhoe.

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THE LANCET

SPECIAL SUPPLEMENT

IN SUPPORT OF THE

METROPOLITAN HOSPITAL SUNDAY FUND

Published in aid of the Appeal to be made on Sunday, June 12th, 1898.

THE PUBLIC AND THE LONDON HOSPITALS.

THE Metropolitan Hospital Sunday Fund has now been established so long that only those among us who are verging upon middle-age can clearly recall the days when it did not exist, while this is the twelfth representation made by THE LANCET on its behalf to a public wider than the professional circle of our usual readers. Again it falls to our lot to emphasise, if we can, the appeal which will be made on June 12th from almost every pulpit in the metropolis and from very many beyond its boundaries to the generous, whether rich or poor, and to add for the information of those who care to consider the matter in detail statistics which we believe to be eloquent and which we know to be unimpeachable.

THE CONTRIBUTIONS OF THE VERY POOR AND THE VERY RICH.

Very likely to many of those who for the first time glance at figures relating to the Fund, and who see that last year the sum collected amounted to £41,003 13*s.* 1*d.*, the first thought which will occur will be to the effect that something over £40,000 is a very handsome sum and that it shows wonderfully warm-hearted and universal sympathy with a thoroughly deserving object. From that opinion let us offer a respectful but firm dissent and let us proceed to justify our view in detail. It will be conceded upon the briefest reflection that the hospitals which are aided by the Hospital Sunday Fund constitute the one object of subscription, which not only appeals equally to all sects and varieties of religious belief to be found in a city famous for the number and diversity of its creeds (a general appeal on behalf of the poor does that much), but of which also it can be said that its benefits are reaped in various degrees and ways by all sections or ranks of the population, whether rich or poor, whether directly aided or not. In case we may appear to assume too readily that our position on this point is unassailable we will return later to defend it, but for the present we will proceed to point out that leaving aside minuter fractions as of inappreciable importance the yearly contribution per head of the metropolitan population amounts to the inconsiderable sum of 2¼*d.* We published this calculation last year, but it is a picturesque fact which will bear repetition. We took as a sample year 1890, because in that year the individual donations, the large gifts ear-marked with the names of the givers, amounted to only £3991 out of a total of £42,814. This showed the collections by offertory, the anonymous gifts of the general givers, at a little under £39,000, a larger sum than that contributed by them in many years when the total has been a good deal higher. Taking this, then, as the sum given by the general population of London, and the number of that population in 1890 to have been about 4,200,000, it will be found that the sum contributed individually amounted to less than 2¼*d.* Now we are quite aware that it may be said in reply that the 4,200,000 include the poorest of the poor, the women and the children, and that for hundreds of families 2¼*d.* per head would be an impossible annual contribution; but at the same time it is obvious, though not too obvious to be pointed out, that there are thousands of families to whom a much larger sum would mean a small percentage only of money usually spent upon self-indulgence, even though the contributors would justly claim to be among the necessitous of our fellow citizens. Let us leave out of the question the odd 200,000 given in the figures we have quoted as being the number of the population of London, or rather of the conglomerate district to which the objects of the fund appeal, and having thus got rid of one-half of what has recently been known as the "submerged tenth," take the million that comes next above them in the scale of poverty. It would, we may be told, be utterly unpractical to suggest that of this million, which, indeed, includes women and children, one-fourth part should contribute on the average—say—1*s.* per annum to the Metropolitan Hospital Sunday Fund. Unpractical it may be, but we cannot leave the suggestion without pointing out four facts. Firstly, that we are writing of those who contribute voluntarily to no other charitable or philanthropic work or do so to an infinitesimal extent. Secondly, that of the fourth part of the million we have imagined practically all probably earn *something* in the course of the year, while very many of them are in receipt of substantial wages. Thirdly, that the 1*s.* which we have taken as a remotely possible sum may seem preposterously large and may have been chosen by us simply because it was a convenient one to name for the sake of argument, but that at the same time it fairly represents no more than the price of 2oz. of tobacco added to the cost of a couple of quarts of beer. What proportion 2 quarts of beer and 2 oz. of tobacco bear to the annual *average* consumption of those luxuries by the least poor quarter of the humblest million of the metropolis (omitting the 200,000 as above) we leave to those who care to ascertain the necessary figures and make the necessary calculations. But although we are ready to admit that such a contribution is not likely to be made we must point out that the persons making it would be those who, in themselves, their wives, and their children, benefit most largely and most directly from the hospitals which wealthier citizens have planted in their midst. And this brings us to the fourth fact—namely, that a contribution upon such a scale as we have imagined would exceed in aggregate result that made by the same million persons at an average rate of 2¼*d.* per head by more than £3000.

Turning at this point from the poorest to the wealthiest section of the community—a section which includes only a few thousands or perhaps a few hundreds, whose names are in some instances household words and in some are completely unknown to most of us—we are driven to the conclusion that a large portion of the Metropolitan Hospital Sunday Fund is received from the surplusage of large incomes. We have referred to the special donations to which the names of the givers are attached, and details of which lie before our readers. In 1890, as we have said, these special donations did not bulk largely. How great the value of these noble gifts may be and their importance with relation to the whole Fund can be seen from the figures of 1895, when the total sum subscribed amounted to the unusually high figure of £60,361. Of this total a few pounds less than £22,000 were special donations, and of these £10,000 were given by one financier and the circle immediately associated with him. When therefore we point out that 1895 was the year of what is known as the "South African Boom" it will be seen that the Hospital Sunday Fund may find itself depending to a great extent upon surplus wealth, liable to fluctuation in its amount, and that even in the case of the extremely rich the subscriptions do not constitute a voluntary rate levied upon themselves by those who could do so with least effort and with most conspicuous results; for in the year 1895 the nameless givers contributed a few hundred pounds less than in 1890. The Fund has no reason to complain of the generosity of the wealthy; when the figures are considered the conclusion most naturally arrived at is that the wealthy contribute a liberal share to the support of our hospitals, for it must be borne in mind that over and above their contributions to the Metropolitan Hospital Sunday Fund this is the class from which large sums in gifts and legacies annually accrue to individual hospitals, gifts without the aid of which these hospitals would not be able to carry out their work.

THE CONTRIBUTIONS OF THE GREAT INTERMEDIATE CLASS

When, however, we come to consider the bulk of the population of London, the vast number of persons whose pecuniary position lies between the extremes we have been considering, and whom we can subdivide further indefinitely, we find that while this class contains in its upper and lower divisions a large crowd of subscribers to charity who pay with more or less regularity and remain anonymous it must at the same time be said of these that their contribution to the Metropolitan Hospital Sunday Fund cannot from the figures before us be held worthy of the great body of citizens which is responsible for it. We are writing, be it remembered, for all creeds, on behalf of a Fund mainly collected upon the day held sacred by the Christian religion, but appealing at the same time to all varieties of religious thought and denomination, and on behalf of a Fund the object of which is to aid institutions which not only are of benefit but are actually necessary to the bodily welfare of all members of the community, whether rich or poor, although the boons which they confer immediately upon the poor renders them primarily and more conspicuously charitable. What wonder then that we say that a sum of £40,000, even if it represented the gifts of the "intermediate" citizen only, is inadequate, whether regarded as his contribution to the needs of his poorer brethren or to the aid of the science to which he himself appeals when in sickness. As we have said, £40,000 is not the contribution of the "intermediate" citizen, but even if it were what would it represent? Half-a-crown per head from 320,000 persons, the sum which a clerk on a comparatively small salary spends cheerfully in any week of the year on a seat at a music-hall or the pit of a theatre. We neither urge nor deprecate self-denial in this behalf: we simple wish to indicate that what some would say was a large sum for persons in a comparatively humble rank of life to give is spent by them unquestioned and frequently upon pleasure, while there is another point to which the question of self-denial, even if we do not fully go into it, must of necessity lead. If the hospitals are to be supported only from the surplus which remains to a fortunate few after they have provided liberally for their necessities and equally liberally for their luxuries, what is to happen in years when some unexpected general shrinkage of incomes occurs? Most of the hospitals of London while doing their noble work are living from hand to mouth; more, they are in a pecuniary position which in individuals or trading corporations would be tersely described as bankruptcy. What is to happen to them in years of bad trade? We are living in a time of political uncertainty which is reflected in the dealings of the markets in which we buy and sell and there are very many of all classes who even now are suffering from recently diminished incomes. Does it not behove all who have the means and who, as a rule, do not contribute largely, or perhaps at all, to charitable or religious enterprises, who possibly spend little or nothing in the year upon others, to endeavour to contribute a gift which is substantial and which represents maybe a small pleasure foregone, an inconsiderable fraction of one per cent. upon the yearly income? And does it not behove them to do this for two reasons, firstly, in order that the hospitals may be put in a position of comparative financial soundness as soon as may be, and, secondly, in order that their income may not only be increased but may be more stable than one proceeding largely from funds which are only available in seasons of plenty can ever be?

THE QUESTION OF STATE AID.

But, say many, when the matter is approached from this point of view, if you wish to place the hospitals upon a sound financial basis why not aid them with State or municipal funds? Look at the sum which a fraction of a penny on the income-tax will produce, or, as it is rather a municipal and local matter, consider that under the Public Libraries Act of 1892 a rate of a penny in the pound may be levied in any district which chooses to declare itself in favour of a free library, so that all citizens residing in that district shall contribute their fair proportion to the cost of it. Consider the number of districts in London and its neighbourhood that cheerfully pay this rate and maintain libraries in order that, as the opponents of free libraries cynically put it, a minority of the inhabitants may enjoy all possible facilities for studying the betting and racing news. Can it be for a moment said that these districts, and many more than now avail themselves of the law to obtain free libraries, would not cheerfully see their rates added to by a far greater amount than the penny referred to, if such institutions as the London hospitals, of which Londoners are so justly proud, were to be the recipients of the income thus provided? Again, an alternative or subsidiary plan to State support is to aid the hospitals by taxation levied upon places of amusement, such as theatres and concert halls. We have just instanced the amount spent by a youth of small income upon his seats in the pit as a standard whereby might be judged his subscribing powers to charity; and it was in our mind to suggest that the price of a couple of stalls would not be a large sum to expect from many who fill seats in the best part of the theatres and music-halls perhaps many times during the run of a popular piece as their tribute to the funds of the London hospitals. When, however, it comes to *taxing* anybody or everybody by force of law, for the sake of supporting that which has been originated by voluntary generosity and kept alive by the same agency for so long, a wise man may well pause and consider. We suggest as food for his reflection the following points. They have, of course, been urged before both in our pages and in those of our contemporaries.

In their origin and in their continued existence our hospitals individually have ever represented the liberality of those who have the good things of the world towards those who have not. We have suggested that the poor might reasonably be expected to help, but we are well aware that it is the richer class, the class which is so well endowed that its members would not be admitted either as in-patients or out-patients to the benefits of any hospital, that must always contribute the lion's share. If once the compulsory system were introduced, even to subsidise, it would begin by diminishing and end by destroying the voluntary system altogether. Those who found themselves taxed for the hospitals would gradually cease to subscribe voluntarily, some because they would not care to pay twice over, others because they would think that their subscriptions were not needed for a State-aided institution, others because they would hold that what the State or the township did at all it ought to do thoroughly and bear the whole cost, where it bore a part, and also interfered with the control. This last consideration is the most important one of all. Where the State or the municipality found the funds, there it would necessarily claim to raise its voice in directing the spending of them. And so instead of institutions ruling themselves independently under the

guidance of their own wisest and most experienced members, ever ready to detect and censure any real misfeasance, we should have branches of a Government department aided in their administration by local municipal wisdom. The change from the present system to one of red-tape and schedules no well-wisher of science or of the suffering poor would wish to see. Red-tape is not a ligature employed in our wards and we hope it never will be. What may be the result of permitting the interference of local municipal authorities in scientific institutions has been shown over and over again. Men who are possibly sensible business men and capable as such of sound and economical management where the purchase of necessaries and the keeping of accounts are concerned are not to be expected to prove sound judges of scientific questions and of medical procedure. They are exposed to influences unfelt by professional men which guide them wrongly to the detriment of others besides themselves. But there is another equally grave objection to the proposal of State-aid. What is to be the limit within which State-aided or rate-aided medical and surgical relief is to be afforded? The question has arisen at times locally, and on a small scale, but if the experiment were to be tried in London the consequences would be neither local nor small. We have now a national and State-aided system of education. There is no limit imposed within which its benefits are conferred. It has naturally been thought that it is illogical to compel everyone to help in the maintenance of schools and to reserve to one class only the benefits of the schools themselves. On the contrary, a limited class are so aided that education can be obtained free up to a certain point, while no child who comes and pays all the fees demanded is refused admittance on account of the pecuniary position of the parents. Some of the classes for whom the national education system was not originally designed avail themselves of this. Clergymen and others of small means but good social position are known to pocket their pride and send their children to the village school. They get thereby an excellent education for their offspring, they feel that they are entitled to it, and that by accepting it they are also setting to others a good example; they are, in fact, showing their appreciation of its benefits. On the whole, however, the social standard of the children educated in the public elementary schools of our towns and villages remains pretty much where it was before. The farmer and the small tradesman do not care to send their families to mix with those of their labourers and workpeople. They despise those that do so and feel that they would lose caste by putting themselves on their level as long as they can afford to pay to have their children educated in schools where the fees are higher and the company more select. But no one has ever observed this unwillingness to take advantage of that which was designed for the good of those unable to pay the full price for themselves when it was a case of saving a medical man's bill by having recourse to treatment at a public hospital. Both in the in-patient and out-patient departments constant care has to be exercised to prevent persons from obtaining relief who could well afford to pay for it in the ordinary way in their own homes. The difficulty of dealing with the applications of such persons would be enormously increased if they thought they could claim as a right that to which they were compelled to contribute, while if once it were admitted that the right was theirs the whole character of our hospitals would at once be changed. They would be charitable institutions no longer, but would become huge state or municipal dispensaries for the community at large, while the only check on the increase of their dimensions and of the taxation necessary to maintain them would lie in reducing the comforts supplied and the general scale of their administration to the level now maintained in our workhouses or prisons. What the effect of either of these alternatives would be we need not discuss. It is enough to say that the sufferers would inevitably include the general public, the patients, and the medical profession, an opinion in which medical men are not alone. In 1890 a Special Committee appointed by the House of Lords sat to investigate the whole subject of the administration and accommodation of the metropolitan hospitals and issued an elaborate report as the result of deliberations extending over two years and assisted by a large mass of expert evidence. This report, it is true, recommended improvements of organisation tending to knit the various institutions into one coöperating whole, but the Special Committee which made the recommendation, while dealing with possible improvements in the manner of dealing with the resources of the hospitals spoke no word of criticism upon the manner in which they are obtained—no word of praise of any scheme for throwing the hospitals upon the rates.

THE HOSPITAL AND THE COMMUNITY.

The system we have and which we are proud of is one which has built up for us a system of national hospitals given to and maintained for the nation by the voluntary act of the nation's individual members. If only the funds provided can be in any way made sufficient for the work it is evident that the voluntary method expressing the gratitude and benevolence of the community at large is the right one, the one which does honour both to the giver and the recipient. These two motives, gratitude and benevolence, personal thankfulness towards a system beneficent to the giver himself and goodwill towards that which aids suffering fellow-men, have made the hospitals what they are, and these two motives once thoroughly aroused in the heart of the people of our metropolis should maintain the hospitals without difficulty in the noble position they have won. Each motive should appeal in varying degrees and for various reasons to every class. The cause of gratitude for those who are givers only, though less obvious than in the case of those who have been, or are liable to become, inmates or out-patients themselves, is none the less very real. Take the case of the millionaire who, crushed in a sudden accident to his carriage, lies unexpectedly at the doors of death. Should the catastrophe occur near a hospital and should his condition be such that after his admission for immediate treatment his removal is undesirable he remains an inmate till he is convalescent, with skill as great as any he could summon to his private bedside at his command, and whatever aid is rendered to him is given with no claim for remuneration beyond that which the injured man's sense of gratitude may dictate. If, on the other hand, he is taken to his private residence the medical man summoned to consult beside his pillow may be the same man who would have dealt with his case in the hospital, whose skill has been acquired within hospital walls, and whose name would have been unknown to millionaires had not it been first known favourably to the poor and to his colleagues at his hospital. It is more evident perhaps in surgery than in medicine, but it is none the less true of both, that no body or combination of rich men, however powerful or however wealthy, anxious to retain the highest skill for the use of its members, could do so or would ever think of doing so, to the exclusion of the humble. The medical attendant of the rich man who has been injured in a carriage accident could have gained no experience in dealing with such injuries if he had not for years been in daily contact in his hospital with the mass of sufferers to whom crushing and maiming are among the common risks of their everyday occupations. In like manner in the medical wards of our hospitals opportunities are given for systematic observation, record, and comparison impossible in private practice, on which account it is not too much to say that the higher the degree of knowledge and dexterity exacted by the rich man of his medical attendant the greater reason has he to be grateful to our hospitals which offer such skill to be retained should his needs require it. We urge this point of view upon those rich men who see no other possible motive than benevolence to prompt the gifts of their fellows to the Metropolitan Hospital Sunday Fund and who for themselves claim that they find fields for their own benevolent impulses elsewhere. To the mass of citizens of greater and smaller degrees of wealth, whose medical attendants do not, as a rule, include members of the permanent staff of any hospital, we desire to point out that in their need they turn to those members of the medical profession who may exercise their skill in a circle of private patients, but who must have first acquired it through the medium of hospital appointments or hospital tuition. The mass of citizens do not, save on exceptional occasions, require assistance other than that of the general practitioner who acts as their family adviser. They pay him fees commensurate, as a rule, to their own condition of life rather than to the services which he renders to them, and from the poorest he receives a fee which cannot in any sense represent the time, trouble, and skill which he has bestowed on the case in question. Let us point out that it is only the facilities afforded by our hospital system which enable the general

practitioner to obtain the training that he does during the time and at the price that the average young man can devote to preparation for his profession. The Metropolitan Hospital Sunday Fund is collected mainly in the metropolis and is for the hospitals situated therein, but dwellers in the country would be badly off for medical advice if the schools of the metropolitan hospitals only admitted students pledged to practise within the area immediately surrounding them, while the London hospitals welcome daily patients from all parts of the United Kingdom. Dwellers in country districts have their local hospitals to assist, but in justice to what they owe to London they should not forget London's needs. We have spoken of the gratitude of the richer classes in prompting them to subscribe to hospitals; let us turn to the poorer class—to that class which avails itself of hospital relief and for which hospital relief is primarily intended. To exact a fee from such would be impossible, to demand it would be to rob the hospitals of their charitable character; but at the same time no one who watches from an outside point of view the crowd which waits each morning before the entrance to the out-patient department of a great hospital can fail to see many in it to whom, or to the family of whom, a few pence could hardly be a matter of serious consideration. He is surprised perhaps to see some of them there at all waiting for charitable relief, and he cannot help hoping that when they get it, if the hospital admits them to it, they are duly grateful.

SOME CURIOUS CALCULATIONS.

What do the figures say? Let us take a recent year at random; 1896 will do as well as any and the sums look easy to calculate in the table which refers to the work of the special hospitals, and the moneys assigned to them in that year by those who managed the Hospital Sunday Fund. The precise sum distributed to them—and 57 hospitals divided it in the proportions assigned to them—was £13,662, while the number of visits made by out-patients was (as shown by estimates in some cases combined with precise returns in others) 1,310,885. Let us leave out the odd hundreds in the one case and the odd thousands in the other, and we have £13,000 for 1,300,000 visits. One sovereign (or a little over, in point of fact) for every 100 visits represented the gratitude not of the patients treated, but of the whole of London for the boon supplied. £1 per 100 amounts to a little more than 2½*d.* apiece, so that if each patient *had* chosen to contribute that sum for every visit made he who attended once would have given little more than the estimated average gift of a Londoner who has personally received no relief; while the whole amount so raised would have nearly equalled that contributed by the whole of wealthy London to its special hospitals through the Hospital Sunday Fund, 1,300,000 times 2½*d.* amounting to £12,500. Figures such as these help one to realise that great as is the value of the Metropolitan Hospital Sunday Fund to the institutions in whose behalf it is raised and warm as is necessarily their appreciation of it, it really only plays a very small part in providing for their daily expenditure. This we say, of course, not from any wish to depreciate the Fund, but solely on account of our desire that it may play a larger part, a part more worthy of the care with which it is organised and the objects which it benefits. We spoke of the man who glances for the first time at the annual totals and is at once struck with the idea that they are large from the point of view of the givers. Let us point out to him how inadequate they are from the point of view of the receivers. We will not compare them with the amount of the indebtedness of the hospitals or with the income of each institution from other sources, as it is not pretended that the contribution of the Fund is all each hospital has to live upon. Taking two years at random, 1888 and 1896, we find that in the former the amount which the Fund could assign to the hospitals, as distinct from institutions, dispensaries, &c., was £34,135, while the number of general and special hospitals which qualified to receive donations was precisely 100. In the later year, a year when the Fund rose to a higher figure than usual, though not as high as in 1895, the total distributed to hospitals was £39,199, but against this increase the number of the institutions assisted was 116 instead of 100. When we point out that, according to the best obtainable statistics, in 1888 the general and special

STATISTICS OF HOSPITAL WORK IN LONDON DURING THE YEAR 1897.

TABLE I.—GENERAL HOSPITALS.*

N.B.—The figures referring to out-patients in these Tables represent the number of VISITS *paid by out-patients—*NOT *the* NUMBER *of out-patients.*

Name of hospital.	Hospital Sunday Fund award.	In-patients.	Relieved.	Cured.	Con-valescent homes.	Remaining under treatment.	Died.	Out-patients' visits.	Accidents and emergencies
	£								
Charing-cross	1,606	2,017	1,075	781	155	134	163	94,604	11,790
French	324	711	135	494	93	50	32	16,864	650
German	304	1,644	411	535	499	86	113	46,104	2,679
Great Northern Central	481	1,527	1,279		70	97	151	62,534	5,034
Guy's	1,313	6,609	5,435		724	412	570	161,781	48,387
Hampstead	131	305	43	231	5	18	13	1,787	69
Italian	61	122	—	120	—	2	2	15,851	—
King's College	1,400	2,004	834	1,079	220	177	229	39,658	13,143
London	3,937	11,146	3,857	5,182	1,097	613	1,058	301,636	19,842
London Homœopathic	245	1,064	256	580	200	82	69	29,077	696
Phillip's Memorial Homœopathic	31	74	18	50	b	6	—	2,910	9
London Temperance	648	1,175	323	682	64	77	108	18,396	11,846
Metropolitan	481	1,054	285	580	29	67	123	100,793	10,449
Mildmay Mission	202	482	111	284	—	32	30	24,051	1,701
Miller Hospital and Royal Kent Dispensary	236	276	37	189	15	19	16	44,164	6,429
North-West London	350	860	116	319	99	45	29	35,093	6,018
Poplar	403	1,037	818	169	71	56	57	22,315	—
Royal Free	831	2,162	1,798		110	150	214	90,983	16,540
St. George's	1,356	4,689	2,919		881	334	412	105,574	12,096
SS. John and Elizabeth	88	51	51	—	20	16	27	—	—
St. Mary's	1,706	3,317	836	1,992	256	248	265	85,317	17,430
Seamen's Hospital Society	919	2,020	705	1,574	20	188	155	90,324	22,581
The Middlesex	1,925	3,641	2,619		675	267	390	126,076	31,825
University College	1,181	2,875	879	1,435	433	124	233	175,270	35,419
West Ham	280	694	68	525	7	37	49	69,895	9,523
West London	725	1,683	1,246		—	88	158	86,709	7,674
Westminster	1,004	2,618	2,216		383	179	223	70,000	11,073
	£21,608	56,758	10,907	16,791	6,061	3,604	4,889	1,917,486	302,963
Estimated to supply omissions	—	—	5,547	11,995	40	—	—	—	3,541
Total	£21,608	56,758	16,454	28,786	6,101	3,604	4,889	1,917,486	306,444

* We reproduce the term "General Hospitals" as employed by the Council of the Metropolitan Hospital Sunday Fund.

TABLE II.—SPECIAL HOSPITALS.

Name of hospital.	Hospital Sunday Fund award.	In-patients.	Relieved.	Cured.	Convalescent homes.	Remaining under treatment.	Died.	Out-patients' visits.	Accidents and emergencies
	£								
City of London for Diseases of Chest	927	760	676		—	116	84	65,126	—
Hospital for Consumption	1,391	1,681	1,147		230	290	244	71,595	—
North London ,,	263	3,279	3,259	—	—	58	20	19,674	—
Royal Hospital for Diseases of Chest	350	740	577		43	69	94	24,932	—
Royal National Hosp. for Consumption	262	848	662	—	—	131	30	—	—
Alexandra Hospital for Hip Disease	149	168	27	51	22	59	2	1,703	—
Barnet Home Hospital	35	61	45	22	—	14	1	—	—
Belgrave Hospital for Children	178	327	75	211	12	5	34	15,817	200
Cheyne for Incurable ,,	124	73	4	3	6	46	12	—	—
East Lond. Hosp. for ,,	394	1,616	319	802	126	86	324	74,913	8,348
Evelina Hosp. for Sick ,,	394	862	672		118	34	154	21,153	688
Home for Incurable ,,	61	35	—	—	—	37	5	—	—
Home for Sick ,,	123	725	—	—	152	—	15	4,056	—
Hospital for Sick ,,	700	2,145	770	673	199	136	265	84,841	—
North-East. Hosp. for ,,	262	772	156	455	97	53	111	54,352	2,073
Paddington-green for ,,	149	573	473		106	38	62	43,819	2,552
Victoria Hospital for ,,	481	894	753		445	31	3	88,303	576
Victoria Home, Margate	26	25	16	6	—	16	1	—	—
"The Vine"	26	41	9	6	—	22	—	—	—
British Lying-in Hospital	26	187	—	186	—	9	1	—	—
City of London Lying-in Hospital	66	521	—	518	7	28	3	11,676	—
Clapham Maternity	31	337	—	—	—	—	2	8,330	—
East-end Mothers' Home	61	237	—	234	—	11	3	2,410	—
General Lying-in	53	—	—	—	—	—	—	—	—
Queen Charlotte's Lying-in	201	1,101	—	1,101	—	—	—	7,868	19
Chelsea Hospital for Women	306	693	33	602	148	43	15	10,269	—
Hospital for Women	306	720	303	311	86	58	23	24,605	—
Grosvenor Hosp. for Women and Children	44	91	47	31	6	11	2	10,938	—
New Hospital for Women	192	555	205	310	—	—	13	32,482	—
Royal Hosp. for Children and Women	219	375	—	—	12	—	39	19,937	12
Samaritan Free	490	542	111	408	—	40	12	22,178	—
Cancer	589	832	730		20	85	91	14,140	—
London Fever	875	707	—	616	—	77	14	—	—
Gordon for Fistula	37	253	22	221	—	5	—	4,296	—
St. Mark's ,,	53	309	40	236	—	25	4	4,131	—
National for Diseases of Heart &c.	53	117	96	15	—	—	6	10,079	—
Female Lock	123	694	610	—	2	76	2	16,976	—
Hospital for Epilepsy &c.	57	81	78		2	19	1	11 928	—
National for the Paralysed &c.	752	1,001	347	155	185	186	20	36,974	—
West-End for Nervous System	96	296	219	31	—	44	2	28,412	—
Central London Ophthalmic	26	209	12	197	—	12	—	26,527	239
Royal Eye	166	405	335	339	—	23	2	—	—
Royal London Ophthalmic	490	1,968	—	—	—	59	2	129,960	—
Royal Westminster ,,	88	644	627		—	17	—	26,404	—
Western ,,	39	—	—	—	—	—	—	—	—
City Orthopædic	66	—	—	—	—	—	—	—	—
National ,,	70	206	149		—	56	1	3,124	—
Royal ,,	61	170	54	83	—	47	—	3,443	—
Royal Sea Bathing Infirmary	298	592	351	107	—	99	7	—	—
Hospital for Diseases of Skin	—	41	3	36	—	2	—	14 479	—
Western Skin	—	—	—	—	—	—	—	6,793	—
St. Peter's for Stone	56	430	419		—	8	11	32,771	—
Central London Throat and Ear	35	277	36	220	3	6	12	48,880	—
Hospital for Diseases of Throat	—	470	76	373	14	—	7	41,132	60
Metropolitan Ear and Nose	—	8	—	8	—	—	—	6,141	—
Royal Ear	8	307	—	—	—	—	—	8,757	—
The Dental	109	—	—	—	—	—	—	62,512	—
National Dental	105	—	—	—	—	—	—	—	—
Estimated to supply omissions	£12,435	31,001	8,278	8,568	2,040	2,291	1,767	1,208,878	14,767
	—	1,719	4,955	5,559	217	224	—	99,117	4,288
Total	£12,435	32,720	13,233	15,127	2,257	2,515	1,767	1,307,995	19,055

hospitals, leaving cottage hospitals out of the calculation, took in 71,000 patients, and in 1898 took in 84,130, it will be seen that the Fund contributes just about 10*s.* per annum towards the board, lodging, and medical attendance of each in-patient relieved, it will be seen from the figures below, which demonstrate the progress of the Fund, that although a glance at the column of totals shows an increase in money subscribed as between 1889 and 1896, it cannot be reckoned as an instance of steady and confirmed progress; whereas there is an increase in the number of those seeking hospital relief, which must be constant both now and in the future, because it principally depends upon the increase of the population of London and its rapid growth at all points towards its suburbs. The increase of 16 in the number of hospitals partaking in the fund may partly be accounted for by the fact that each year more hospitals by care and good management bring themselves within the conditions enforced by those who distribute the grants.

Progress of the Metropolitan Hospital Sunday Fund.

Year.	Totals.	Donations.	Year.	Totals.	Donations.
1873	£27,700	£1844	1886	£40,399	£4817 [3]
1874	29,936	1505	1887	40,607	4130 [4]
1875	26,396	1424	1888	40,379	3080
1876	27,042	1339	1889	41,744	3482
1877	26,082	947	1890	42,814	3991 [5]
1878	24,904	1199	1891	45,330	9019 [6]
1879	26,501	1120	1892	41,512	4429 [7]
1880	30,423	1567	1893	39,290	3652 [8]
1881	31,856	1638	1894	43,679	7717 [9]
1882	34 146	2106	1895	60,361	21.990 [10]
1883	33,935	1980	1896	46,035	3682 [11]
1884	39,329	6410 [1]	1897	41,003	2361 [12]
1885	34,320	2555 [2]			

[1] In 1884 £4500 was received from the managers of the International Health Exhibition.

[2] In 1885 a special donation of £1000 was received from Dr. James Wakley, Editor of THE LANCET.

[3] In 1886 a further special donation of £1000 was received from Dr. James Wakley.

[4] In 1887 a legacy of £1000 was paid by the executors of the late Dr. James Wakley.

[5] Including legacy of £1003 14s. from the executors of the late Mr. Thomas Crouch.

[6] In 1891 donations of £5000 from the late Duke of Cleveland, &c., and £1000 from Sir Savile Crossley, Bart., were received.

[7] In 1892 Sir Savile Crossley gave a further £1000; and a legacy of £105 was paid by the executors of the late Dr. H. E. Price of Brighton.

[8] In 1893 Sir Savile Crossley gave a further donation of £1000.

[9] In 1894 a legacy of £5000 (less duty) was paid by the executors of the late Mr. W. J. Whitaker, and Sir Savile Crossley gave a further donation of £1000.

[10] In 1895 Messrs. Barnato and Friends gave a donation of £10,000; £3400 was received from the Stock Exchange through Messrs. Pym, Vaughan, and Co., and Messrs. Burdett and Harris; Lord Iveagh gave a donation of £1000; Sir Savile Crossley gave a further donation of £1000; and Mr. J. B. Robinson gave £1000.

[11] In 1896 Sir Savile Crossley gave his sixth donation of £1000, and legacies were received from Mr. John Smith of £500 and Mrs. May Evans of £172 9s. 4d.

[12] In 1897 Sir Savile Crossley gave his seventh donation, amounting this year to £500.

THE FIGURES FOR 1897.

Let us now examine the figures compiled with reference to the Metropolitan Hospital Sunday Fund and its distribution in the past year (1897) and with reference to the work of the London hospitals during the same period, and we shall be able to see if they continue to bear out the deductions which we have hitherto made from the statistics of previous years taken at random. In the first place with regard to the amount collected. This we find from the balance-sheet of the fund was £41,003, as against £46,035 in 1896, £60,361 in 1895, and £40,379 in 1893. If we take two more dates, also recent ones—1891, £45,330; 1893, £39,290—we shall not add very much to our argument, but we shall possibly make it a little clearer that the Hospital Sunday Fund does not steadily increase with the growth of the population of the metropolis nor does it increase more rapidly in proportion than the population as it becomes better known. On the contrary, it fluctuates with so-called good years and bad, in a manner possibly natural, but none the less calculated to cause anxiety to those who have the welfare of the hospitals at heart. In urging, therefore, its claims upon those who have not contributed before, either because to do so would have been an act of self-denial or because they have not realised its claims, we have endeavoured to suggest the Hospital Sunday Fund as the subject of a small—very small—self-inflicted taxation, in the hope that the act of self-denial may be made annual and may occur even where the superfluity of income ceases. Again, taking the number of hospitals assisted in 1897 and looking to see whether they have increased in number, as from previous experience we had reason to expect they would, we find their number returned as 120, as against 116 and 100 in 1896 and 1889 respectively. This means that after deducting for other institutions there were last year £37,262 to be divided among 120, as against £39,199 in the previous year among 116. We should like to see the incidence of increase and decrease reversed—the Fund larger annually and the number of applicants smaller owing to the increased prosperity of individual foundations. So much with regard to the diminished receipts of last year and to the increased number of hospitals aided; let us turn to the amount of relief dispensed. The general hospitals have had one more added to their list, which naturally does not increase rapidly; let us strike out this one, the Mildmay Mission Hospital, and the figures relating to it. We then find that the general hospitals last year received £21,346 as

TABLE III.—COTTAGE HOSPITALS AND CONVALESCENT HOMES.

Name of hospital.	Hospital Sunday Fund award.	In-patients.	Relieved.	Cured.	Con-valescent homes.	Remaining under treatment.	Died.	Out-patients' visits.	Accidents and emergencies
	£								
Metropolitan Convalescent	569	3,505	1,210	3,593	—	96	6	—	—
Bexhill "	262	1,601	479	1,078	—	42	2	—	—
All Saints "	481	3,637	1,176	1,295	—	89	4	—	—
Mrs. Gladstone's "	88	647	—	—	—	17	—	—	—
Hahnemann "	35	144	143		—	26	1	3,303	2
Hanwell "	13	—	—	—	—	—	—	—	—
Herbert "	17	436	235	144	—	38	—	—	—
Herne Bay (Baldwin-Brown) Convalescent	22	323	—	—	—	—	—	—	—
Herne Bay Mothers' Home	39	480	—	—	—	—	—	—	—
Homœopathic Convalescent	13	204	—	—	—	—	—	—	—
King's College "	57	385	61	298	—	11	2	—	—
Mrs. Kitto's "	79	329	—	—	—	—	—	—	—
London and Brighton Female Convalescent	26	2,103	2,065		—	38	—	—	—
Mary Wardell Convalescent	87	250	—	—	—	—	—	—	—
Morley House "	96	842	—	—	—	—	—	—	—
St. Andrew's (Clewer) Convalescent	158	635	491	—	—	—	6	—	—
Do. (Folkestone) "	245	2,066	—	—	—	—	—	—	—
St. John's Home for Convalescent Children.	70	360	360	—	—	—	1	—	—
St. Joseph's Convalescent	48	561	322	39	—	45	3	—	—
Convalescent Home for Poor Children, St. Leonards-on-Sea	87	807	209	538	—	49	1	—	—
St. Michael's Convalescent	26	181	—	—	—	—	—	—	—
Seaside "	123	—	—	—	—	—	—	—	—
Warley "	6	70	69	—	—	—	1	—	—
Ascot Priory "	61	—	—	—	—	—	—	—	—
Friendly Societies "	31	—	—	—	—	—	—	—	—
Police Seaside Home	17	663	663		—	—	—	—	—
St. Mary's Convalescent	13	108	—	—	—	7	—	—	—
Beckenham Cottage Hospital	46	159	26	127	—	2	6	—	—
Blackheath and Charlton Cottage Hospital	61	160	45	93	—	6	7	3,871	
Bromley, Kent, "	73	319	54	227	15	19	13	—	—
Chislehurst, Sidcup, &c. "	39	147	17	105	—	8	10	—	—
Eltham "	29	62	11	41	3	2	5	—	9
Enfield "	39	108	21	77	—	9	5	—	22
Epsom and Ewell "	61	103	8	74	10	5	6	—	6
Hounslow "	18	79	29	45	2	10	5	2,392	68
Mildmay "	61	161	46	67	9	23	15	—	5
Reigate and Redhill "	53	249	39	205	—	12	6	—	48
Sidcup "	31	111	19	84	2	4	1	215	21
Wimbledon "	25	103	11	83	1	5	3	100	37
Woolwich and Plumstead "	31	78	13	35	4	8	9	38	18
Establishment for Gentlewomen	105	137	24	106	—	6	1	—	—
St. Saviour's Hospital and Nursing Home	105	83	32	41	—	10	7	—	—
National Sanatorium for Consumption	53	312	185	—	2	62	6	—	—
Invalid Asylum	53	196	155	107	11	21	2	—	—
Firs Home	35	49	16	—	—	19	14	—	—
St. Catherine's Home	16	35	29	—	1	9	4	—	—
Friedenheim Home for the Dying	219	118	28	—	—	37	63	—	—
	£3,942	23,441	5,420	8,602	61	725	215	10,020	236
Estimated to supply omissions	—	1,403	4,013	5,527	—	248	14	865	—
Total	£3,942	24,844	9,433	14,129	61	973	229	10,885	236

against £22,152 in 1896, took in 56,276 in-patients as against 55,514 in 1896, and dealt with 1,893,435 visits of out-patients as against 1,584,735 visits in the preceding year. From this it will be understood that the same group of institutions found their sphere of utility widening last year, as it has widened before and will again, but found a diminished recognition of their needs on the part of the public to which the Metropolitan Hospital Sunday Fund appeals.

GIVE, GIVE, GIVE.

What is that public? The Fund is primarily connected with a collection made in Christian places of worship on the first day of the week. But it excludes no sect or religious denomination of the Christian or any other religion from its appeal any more than the hospitals which it benefits exclude any sect or denomination from their wards. There are many, too, who, not from any motive of sect or denomination, will not hear the claims of the Hospital Fund urged from the pulpit of any place of worship on Hospital Sunday and to this class belong some of whom it least behoves to ignore the appeal, and who are best able to respond to it. To the golfer and the cyclist no one grudges his game or his ride, and parenthetically we may remind each of the support which the medical profession have always given to the national habit of healthy athleticism prevalent in this country. We do not wish to discuss the price of bicycles or to unduly remind the devotees of the one game which appeals to young, middle-aged, and elderly alike of the amount of their club subscriptions, their railway fares, or the expenses incidental to a round of the links, but we do desire to recall to the memory of each that it is for the sick and the maimed that we appeal upon Hospital Sunday and we do ask him as he hurries in pursuit of health not to forget those who are deprived of it and whose only hope of regaining it lies in the generosity of their better-endowed fellow men. A late well-known head-master appealing, not for the first time, for funds for the completion of his school chapel once humorously retranslated "Bis dat qui cito dat" "He who subscribes early gives a second subscription." That is not our point of view here; we do not complain of the generosity of the bulk of those who give annually already, we only urge them to continue their gift and express a very earnest wish that the liberality of Londoners may some day become as universal every time the appeal is made as it is now open-handed where the appeal goes home.

TABLE IV.—DISPENSARIES.

Name of dispensary.	Hospital Sunday Fund award.	Out-patients' visits.
Battersea Provident	£66	—
Bloomsbury ,,	11	—
Brixton, &c.	53	26,340
Brompton Provident	22	6,621
Camberwell ,,	88	90,727
Camden ,,	11	6,150
Chelsea, Brompton, and Belgrave Provident	42	16,040
Chelsea Provident	13	3,119
Child's Hill ,,	9	—
City	61	23,271
City of London and East London	21	63,764
Clapham General and Provident	23	—
Deptford Medical Mission	14	12,660
Eastern	29	17,204
East Dulwich Provident	13	—
Farringdon General	35	17,712
Finsbury	26	45,867
Forest Hill	26	7,705
Gipsy Hill Provident	4	—
Hackney ,,	6	7,844
Hampstead ,,	39	—
Holloway and North Islington	57	22,593
Islington	39	45,570
Kensal-town Provident	4	4,833
Kensington	61	16,341
Kilburn, Maida-vale, and St. John's-wood	28	2,957
Kilburn Provident Medical Institution	26	—
London	13	7,202
London Medical Mission	53	17,096
Metropolitan	44	2,313
Notting-hill	13	1,654
Paddington Provident	28	10,953
Pimlico ,,	14	—
Portland-town	14	5,402
Portobello-road Provident	5	—
Public	39	14,701
Queen Adelaide's	19	16,956
Royal General	35	—
Royal Pimlico Provident	44	55,006
Royal South London	44	18,231
St. George's and St. James's	39	2,300
St. George's (Hanover-square) Provident	35	6,070
St. John's-wood and Portland-town	33	25,000
St. Marylebone General	44	10,904
St. Pancras and Northern	39	—
South Lambeth, Stockwell, & North Brixton	39	—
Stamford-hill, Stoke Newington, &c.	44	39,141
Tower Hamlets	32	9,899
Walworth Provident	10	4,386
Wandsworth-common Provident	8	4,066
Westbourne Provident	12	—
Western	26	28,344
Western General	118	38,601
Westminster General	96	4,015
Whitechapel Provident	17	19,843
Woolwich ,,	9	2,086
	£1,723	817,985
Estimated to supply omissions	—	364,853
Total	£1,723	1,182,838

THE PRINCE OF WALES'S HOSPITAL FUND.

We ought not to close this article without reference to H.R.H. the Prince of Wales's Hospital Fund in support of the metropolitan hospitals, to which we made reference at some length last year by way of speculation as to its probable effect upon the Hospital Sunday Fund. The individual donations to the Prince of Wales's Fund during 1897 ranged from 6*d.* to £12,500 and the subscriptions from 1*s.* to £1000 a year. The total sum paid into the credit of the Fund during the eleven months ended Dec. 31st, 1897, was £227,551 12*s.* 5*d.* Of this amount there were contributed in annual subscriptions £21,443 1*s.* 5*d.* After distributing £56,826 among the hospitals there remained a sum of £167,020 for investment. The total expenditure under all heads, including salaries, office and other expenses, and advertisements, amounted to £3704. It is quite possible that the falling off in the receipts of the Hospital Sunday Fund as between 1897 and 1896 may have been, as we expressed a hope that it might not be, due to the rivalry of so important a competitor; it is also possible that the needs of the hospitals and the importance and merits of the organisation which distributes the Hospital Sunday Fund have been brought before the notice of some who have hitherto been indifferent, and that ultimately the Hospital Sunday Fund will be the gainer. Of one thing we are certain. His Royal Highness would deplore the fact that his Fund should interrupt the channels of other charities. He has designed to honour his mother's Diamond Jubilee by establishing his Fund in aid of the metropolitan hospitals. If the Jubilee Fund detaches subscribers from the Hospital Sunday Fund the deserters pay their Prince and their Queen no compliment whatever. The objects of each Fund are the same; there is no rivalry, while the needs of the London hospitals would absorb the contributions of two more Funds as large and still be found thirsty.

SUMMARY OF TABLES.

—	Hospital Sunday Fund award.	In-patients.	Relieved.	Cured.	Convalescent homes.	Remaining under treatment.	Died.	Out-patients' visits.	Accidents and emergencies
General Hospitals	£21,668	56,758	16,454	28,786	6,101	3,004	4,389	1,917,486	306,444
Special Hospitals	12,435	32,720	13,233	15,127	2,257	2,515	1,767	1,307,995	19,055
Cottage Hospitals and Convalescent Homes	3,942	24,844	9,438	14,129	61	973	229	10,385	233
Dispensaries	1,723	—	—	—	—	—	—	1,182,838	—
Total	£39,768	114,322	39,120	58,042	8,419	7,092	6,385	4,418,704	325,735

In the following sketch we have tried to picture one situation, and not the most sensational, which would commonly arise were London without these noble institutions, the growth of which and of their usefulness in the memory of living man has been so enormous, and the total absence of which from our midst is not, of course, even with the aid of the most vivid imagination, realisable.

THE MISSING WORD.

AN INCIDENT IN LONDON WITHOUT ——.

Joe Smithson, navvy, came up to London in search of employment. He had had a bout of work on a new light railway in Kent, where, being better educated than his fellows as well as a strong man, he had been made foreman of a gang. Then an old enemy had wrestled with him and overcome him—without any very gallant resistance on his part—and his fall had carried him back to the position of a simple digging workman under a foreman he despised and another bout of liquor had been followed by his discharge. Wherefore he was sitting in a public-house with a man whom he had picked up in the street. The change from a sovereign after paying for drinks for two represented his worldly possessions beyond what were contained within the knotted corners of a blue pocket-handkerchief, and he had not yet found a lodging. The man he had picked up was a decent sort of fellow with a quiet thirst and a somewhat forcible way of expressing himself but speaking seldom withal, and Joe Smithson sat with his legs crossed and his arm hanging over the back of the bench they were on and did the talking himself. He was fond of talking, for he was a man who had read a little, who had attended lectures, and who had once gained a prize in a missing word competition which had kept him and his family in plenty rather than peace for six idle weeks.

"Blow 'orspitals," said Joe Smithson, "it wouldn't make no difference if there weren't no 'orspitals."

A friend of his working as foreman of a gang on the Central London Railway had been removed to St. ——'s Hospital the day before suffering from the kick of a pony which had resented his riding down the tunnel on its back, and Joe Smithson had thereby lost a chance of work; but as the friend was being well cared for without expense to himself it was not very easy to see why his fate should lead to the denunciation of hospitals—except that Joe had been denied admission during the dinner-hour. The stranger from the street made a suggestion to that effect, but Joe Smithson only said "Blow 'orspitals" again with more emphasis than before and declined to stand another drink unless the other agreed with him.

"Where'd we poor chaps be without 'em?" asked the man from the street as a parting shot, declining to be persuaded and rising to go.

"Where we are now!" retorted Joe Smithson to himself, and he continued muttering as he hung half over the back of the seat; "where we are now, if we didn't play the fool; and if we did, what matter?" From which it will be seen that Joe Smithson was not in a condition to reason clearly.

So he ordered something more to drink, and then it seemed to him that he, too, rose, forgot his worldly belongings in the blue pocket-handkerchief, and went out.

* * * * *

Five minutes after leaving the public-house Joe Smithson, lurching across the Edgware-road, collided with a horse which was being driven rapidly northward, and the horse being firmer upon its four legs than he was upon his two went on its way without any important deviation, the wheels of the cart passing after it along the right side of Joe Smithson lying prostrate and over his right hand and right foot. The driver, presumably seeing no advantage to be gained by waiting and many excellent reasons for not doing so, drove off at an increased speed; at all events, Joe Smithson saw him no more. He found himself later sitting on the pavement and leaning against an area railing with a dim recollection of having been helped thither by the policeman who formed part of the crowd in front of him. He fancied that he had somehow hopped there, supporting himself partly on the policeman's shoulder and partly on his left leg. His right foot and hand were useless and in addition hurt him considerably.

"That's right," said the policeman in a tone of pride and possession as Joe Smithson opened his eyes and stared at him; "better now, eh Shall I fetch a doctor "

"Fetch a doctor!" exclaimed Joe, finding his voice—he had only groaned hitherto; "why don't yer bring the College o' Surgeons in a wheelbarrer?"

"Anything you like," said the policeman, who evidently did not understand sarcasm, "only make up your mind."

"Mind!" ejaculated Joe Smithson, "there ain't two minds about it; I'll run to a cab if there's one handy and go to the ——" A twinge of pain in his foot interrupted him as he moved and he ended with a groan.

The policeman blew two toots on his whistle and a hansom pulled up by the kerb. A hansom cab is about as difficult a vehicle as could be devised to get a disabled man into, particularly when he weighs 16 st. and is built correspondingly, but there were willing hands in the crowd.

"Where to?" asked the policeman as the cabman looked down through the trap for orders.

"Why, the nearest ——," said Joe Smithson, "I've forgot the word—you know."

"Doctor," suggested the policeman, sitting down beside him.

"No," said Joe Smithson. "Where Bill Harding's gone, and they won't let you see him 'cos 'e's eatin' 'is beef-tea for dinner; St. ——'s ——"

"Church," suggested the policeman.

"No churches for Bill," answered Joe Smithson, almost laughing at the thought. "I means where they boards and lodges and doctors you for nothin', an' the young women wear white caps, an' ——"

But the policeman did not seem to understand and was taking matters into his own hands. "There's Dr. Zealous round in the next street," he muttered, giving an address to the driver.

When the cab stopped a grey-haired, well-dressed gentleman was coming down the flight of steps from a front door which had a brass plate on it and walking towards a brougham which stood in front of it. He recognised the policeman and stepped up to the cab.

"What have we got here?" he asked briskly.

The policeman explained and the doctor stood on the step of the cab and passed his hand quickly over Joe Smithson's bruised and blood-stained hand.

"There's nothing much in it," he said. "Just some bruising. You must take him somewhere else."

"What, you won't do anything for me, then, governor?" asked Joe, setting his teeth against the pain.

"My good man," said the doctor, "I have a large practice to attend to. You had better go home and send out for somebody."

"Ain't got no home," said Joe Smithson gloomily.

The whole thing puzzled him. He was quite conscious now but could not make matters out.

"Try the workhouse," said the doctor to the policeman.

The policeman shook his head. "They say they'd want room for thousands if they took them in like that," he explained. "The workhouses only look after the people that are taken ill when they are in them."

"But isn't there a place," asked Joe Smithson, "where they take in poor chaps like me that get hurt in the streets or lets them come to be doctored and then go home? a p'lace people subscribes for? What do they call it? A ——"

But the old gentleman was walking rapidly towards his brougham.

"No," he said, turning his head as he did so and speaking in smooth, polite tones, "there is no such institution that I know of; but now you come to mention it I quite admit that there ought to be. Constable, why not take him to Mr. Chiron's Academy for students?"

"Oh," groaned Joe Smithson five minutes later, "where is it that they do it all for nothing and the nurses wear them white caps? Where can it be? I've clean forgot the word."

"They'll do a good deal for you here," said the policeman drily, as the cab drew up before a doorstep on which two young men were standing, "but you'd better stop that about missing words and white nightcaps. I'm going back to my beat." He spoke a few words to the young men by way of introduction to Joe Smithson and the history of his case and then left them.

"If you will come in, my man, we will do what we can for you," said one of them. They helped him out of the cab kindly enough and as they were strong young men it was easier work than getting into it had been. They also paid his fare, saying something about Joe wanting all

his money for board and lodging if he were to be laid up for long.

"There's the foot, too; we must not forget that," said one of them after they had got him inside the house and while they were bending over the hand—but they never arrived at examining his foot; what they did to his hand hurt him so much that he drew it back from them and exclaimed fiercely that he did not believe that they knew their trade.

"My good man," said one of them, "no one could touch a hand in that state without hurting you and we are doing our best to relieve you."

"You both of yer look very young," said Joe Smithson, sullenly. "Ain't you bin to no —— ?" Again the word failed him and he paused, weakly groping for it in his memory.

"We may be young and we may be jolly green," said the younger of the two cheerfully; "but if you are going to make a favour of letting us look at you you'd better go; you may think yourself and your case interesting but you are not absolutely unique, you know." Joe Smithson stood up. His foot hurt him a good deal, but his huge boot with its inch-thick sole had taken the brunt of the blow, and the cart had not been a heavy one. He could hobble and he did so towards the door.

"I'm off," he said as he did so. "I ain't let out for experiments, I want a place where I can lie down and be comfortable and have a real doctor and a nurse with a white cap on 'er 'ead."

The two young men exchanged glances. "I think," said the elder one quietly, "that you had better have let us do a little for you before you went to look for all that; anyhow, I'll put your arm in a sling and give your hand a support."

As he evidently meant what he said kindly and was apparently doing what he could for Joe Smithson's comfort Joe submitted with a bad grace and left the house with his arm suspended by means of a white bandage and supported on a splint, so that at all events it felt as if it were being kept together a little. He scowled, however, a few moments later and almost climbed the steps again to claim admittance, having overheard, as he leaned against the area railings, something of what the two young men were saying about him. However, not feeling in good trim for fighting, he thought better of it and moved a few houses farther up the street and leaned against other railings.

"Barmy, is it, they call me? lunatic, eh?" he muttered, "I'll loony them when I've 'ad a month in ——" But still the word refused to come back to him, while hitherto no one had seemed to come anywhere near to understanding his explanations. And yet he was a foreman labourer and intelligent and able to express himself—a man who had won a missing word competition.

As he leaned against the railings and wondered dimly what he was to do next someone tapped him on the shoulder. He turned and saw that it was a clergyman, a tall, thin-faced man, with rather sunken eyes and a friendly smile.

"In trouble, eh?" he asked, pointing to the sling.

Joe explained that he had no home, almost no money, and could get no work until he had recovered from his injuries. Therefore he wanted medical attendance and shelter for a little time. Could the reverend gentleman tell him where the—well, the place where that sort of thing was done for poor men. Joe thought that he had found someone at last, perhaps, who would understand what he wanted and where he wished to go. He did not have much "truck," as he expressed it, with the clergy as a rule, but he watched this one intently as he listened with a puzzled look coming into his deep-set eyes.

"You had better come with me, I think; a doctor who is a friend of mine will see you if I ask him and we will arrange the other matter," he said after a pause; "but we must take a cab, it is two miles away."

"Then I'll pay this journey," said Joe Smithson, as his new friend helped him into a four-wheeler, and in the end he did so, after they had driven a long distance and stopped in a quiet square at a quiet house with a church beside it. He found himself a few minutes later on a sofa in a large room chiefly furnished with books, while a doctor who seemed to live somewhere close by was examining his hand and his foot. Joe had looked anxiously at the servant who brought in hot water and other things as they were wanted; her cap had reminded him vaguely of the place he had wished to be taken to. At last the doctor, who appeared to him to have done what he had to do very thoroughly, for he had taken a long time and hurt him a good deal, seemed to have finished his work so that hand and foot lay swathed in bandages, comfortable, but perfectly immoveable and helpless.

"There," said the doctor cheerfully, "you are a lucky chap to be no worse, and now comes the question what is to be done with you."

"A very serious question," said the clergyman gravely, "all the beds I have here for such people are filled, and though my friend the doctor attends to you because he has a kind heart and I ask him to, lodging-house keepers don't quite take the same view of such matters."

"Lodgings for a month at least," ejaculated the doctor, "and he says he has 15*s.* left and no home. What about your parishioners?"

"They do a good deal for the people in the parish," answered the clergyman; "of course I can ask them; the ladies are very kind, and the men, too, for that matter, when a case is brought directly to their notice."

"But," said Joe Smithson interrupting, "ain't there no other place where I'd be taken in an' done for, doctored and fed an' turned out well—a place where there's hundereds and hundereds of poor beggars like me, and women an' kids too, and them that ain't bad enough to have to stay there can come and be seen by the doctors and get their bottles of medicine given them and take them home with them?"

"No," said the clergyman in his deep, thoughtful voice, "there is no such place in all London."

"Then," said Joe Smithson emphatically, "I always thought there was, and if there ain't there ought to be."

"Our injured friend is right," said the doctor, looking a little graver than he had before. "There ought to be. There is the germ of a great idea in what he says. He means an institution for dispensing medical and surgical treatment to the necessitous poor. It would have to be on a big scale—a very big scale—to do good; but then it would do a great deal of good and allay a lot of suffering."

"I suppose doctors could be found to look after it?" asked the clergyman.

"Rather. Put it on no higher ground than self-education. What a grand place it would be for working in or for learning the elements of your work as a pupil; think of the cost of the education and the value of it compared with what we have now. Now our young men have to find out the way for themselves."

"Blow me, but they *'ave*," said Joe.

"Then they would do nothing until they knew how, and would be learning how all day."

"And would the people avail themselves of such a place?" asked the clergyman, "and be grateful for it?"

"Rather; they'd use it right enough," put in Joe Smithson, "and they'd be grateful for it, too," he added, feeling quite sure that he had heard others speak in warm terms of such institutions, others who had used them and been benefited by them. Of himself he did not feel quite sure. He had never thought much upon the subject and had dim recollections of having on one occasion, out of the spirit of perversity, possibly spoken of them disparagingly. It must have been merely out of the spirit of perversity and thoughtlessness, such a spirit attacks every man at times; but the doctor was shrugging his shoulders and shaking his head.

"Where would the money come from?" he asked. "If you are to do such a thing adequately you must have a large sum of money annually which you can count upon as regularly as quarter-day, so that you may make your work fit your income and be covered by it, and it would not be the sort of work you could limit easily. Taxes and rates are high enough already; people would simply rebel against a wholesale measure for raising them, and yet a charge for each institution on the local rates would be the fair, just way."

"But not the best," said the clergyman earnestly. "No; they must be, if ever they are to be at all, the gift of the rich man to the poor man—aye, the gift of all who have not felt the grinding pressure of absolute want to those who do not know where to turn for help in the hour of need. The rich must give of their bounty not only because they are rich; but because to give is good; because, too, that which they are aiding is a national institution for the nation's good and a training ground for those who in the rich man's need will aid the rich man as they have aided the poor. The man who is not rich will give in proportion to his means, because he is

proud to tax himself for a noble object, perhaps because he, too, will some day derive benefit from that which he is establishing or helping to maintain for others. The good to self is there, we cannot afford to despise it as an argument, but the gift that is free from such a motive commends itself to me best. Such a gift in such a nation as ours from the great to the small, from the 'haves' to the 'have-nots,' would be a gift indeed."

The doctor nodded, and smiled at his friend's enthusiasm. "I daresay the 'have-nots' as you call them would help a bit when they had a little; it would be a case of every little helps, I fancy."

"I take it that the poor have no wish to be pauperised," said the clergyman, rather stiffly. "Those benefited, those taken in, that is, and treated, would feel grateful, but they would usually be, from the mere fact of having been ill or injured, the least able to contribute; it would have to be brought home to those in health among them that no gift, however small, would be despised, and then, you see, numbers would tell. Think what the masses of poor number in this city."

"Yes," said the doctor cheerfully, "it is a fine idea, but a bit Utopian; however, give a thing a good name nowadays and it will often go surprisingly. What would you call these institutions that you seem so ready to develop and organise for us?"

"Ah," said the clergyman; "I had not thought of a name for them; we should have to invent one."

Now Joe Smithson felt perfectly certain that he not only could give the name if he only thought hard enough, but could add a good deal of information which would be of service and of interest to his new friends. He had a vague idea that if he was still in London it was London deprived and absolutely ignorant of what should have been to it a household word, and that the word which to him at least was the key to the whole mystery had entirely escaped his memory. Meanwhile they had in their conversation evidently forgotten his existence, and as he lay on the sofa he was getting very drowsy. If only he, the hero of a missing word competition, could recall the word he could help them, and rest quietly, but what was it?

* * * * * *

"If he's drunk he goes to quad, if he's ill and a wandering in his mind he goes to the hospital; anyhow he goes out of here."

They were standing round him in a group, the landlady of the public-house, the man he had picked up in the street, the potman, and one or two others. The landlady had spoken and the potman was shaking him.

"Well?" said some one as he opened his eyes; but his ears had caught the word his mind had been seeking for in vain.

"Horspital!" he shouted; "that's it."

"Bedlam Horspital, I should think, from the way you've been going on," said the potman, shaking him again.

"Here, mind my hand and foot, young man," said Joe Smithson, "they're injured. At least," he added, stretching out his right arm and bending down to pinch the corresponding leg, "I fancy the way I've been sitting 'as made them go to sleep; and I suppose I've been asleep, too, eh? and it was all a dream of mine about London 'aving no 'orspitals and no doctor or pleeceman 'avin ever 'eard of no such thing?"

The friend he had picked up in the street, and who must have returned to see if Joe would change his mind about the drink, interposed.

"Well, what of it?" he asked. "Who said, 'Blow hospitals; it would make no difference if there was no hospitals at all'?"

"Look here," said Joe Smithson solemnly, "I said it, and I've seen I'm wrong. I'm sorry I said it, and what's more I'm going to find out about what they call the Hospital Sunday Fund. If they're all square an' keep their accounts right, an' play the game, they'll have my half-a-crown when the time comes—and yours, too, if I can make yer."

And he went out, looking thoughtful, in search of work and a lodging.

THE METROPOLITAN HOSPITAL SUNDAY FUND.

Amounts received and disbursed in the year 1897.

Dr. RECEIPTS *for the year ending 31st October, 1897.*

1897.	£ s. d.	£ s. d.
To Balance at Bank of England, 1st Nov., 1896	1,664 16 2	
,, Balance in hands of Secretary	7 4 8	
		1,672 0 10
,, Collections made at Sundry Places of Worship	37,373 19 10	
,, Collections at Schools	22 2 4	
,, Donations, including £16 14*s.* 0*d.* for Surgical Appliances	2,360 10 7	
,, Dividend on £45,346 1*s.* 3*d.* 2½ Consols, per Executors to the Will of W. A. Guesdon, deceased	1,247 0 4	
		41,003 13 1
,, Balance — Excess of Payments over Receipts	830 16 2	
Less in hands of Secretary	21 6 10	
		809 9 4
		£43,485 3 3

PAYMENTS *for the year ending 31st October, 1897.* **Cr.**

1897.	£ s. d.	£ s. d.
By Awards to 120 Hospitals	37,262 11 1	
,, Awards to 7 Institutions	595 0 0	
,, Awards to 56 Dispensaries	1,719 9 7	
,, Surgical Appliances	2,247 19 1	
		41,824 19 9
,, Rent	170 0 0	
,, Fuel, Gas, and Office Cleaning	22 18 5	
,, Printing and Stationery	250 13 6	
,, Stamps and Postage	88 5 7	
,, Advertisements	268 13 4	
,, Salaries and Wages	818 1 6	
,, Sundries	5 19 9	
		1,624 12 1
,, Special Expenses— Special Church and Chapel Appeals		35 11 5
		£43,485 3 3

Audited and found correct, this 2nd day of December, 1897.

(Signed) W. H. PANNELL & Co., *Chartered Accountants*, 13, Basinghall-street, E.C.

*** In the preparation of the voluminous statistics of hospital work which have been here digested and exhibited in collected form (and which have been specially supplied to us in response to our applications, and are quite independent of any returns made to the Metropolitan Hospital Sunday Fund Committee) we have been greatly indebted to a large number of secretaries and other officers of the various medical charities of the metropolis. To them we desire, as on many previous occasions, to tender our sincere thanks.—ED. *L.*

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